1968

44th annual

SUMMARY OF ILLINOIS FARM BUSINESS RECORDS

Commercial Farms:

PRODUCTION
COSTS
INCOME
INVESTMENTS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
COLLEGE OF AGRICULTURE
COOPERATIVE EXTENSION SERVICE
CIRCULAR 1006

Source of Data

This report is based on data obtained from farm business records on 6,500 Illinois farms. It is the 44th in a series of annual summaries of such records obtained from farmers cooperating with the University of Illinois Cooperative Extension Service, the Department of Agricultural Economics, and the Illinois Farm Business Farm Management Association.

At present about 1 out of every 10 full-time commercial farmers (farmers with $10,000 or more of gross sales) in Illinois is enrolled in this service. The service has grown steadily, and in 1969 there are 10 associations in 102 counties served by 42 full-time fieldmen. Participation in this farm business analysis service is voluntary, and cooperating farmers pay a fee for the services received.

The development since 1940 is shown by the following figures:

Year	*Associations*	*Counties participating*	*Fieldmen employed*	*Farmers enrolled*
1940	3	23	3	680
1945	8	54	9	1,830
1950	8	59	15	2,760
1955	9	89	24	4,501
1960	10	100	33	5,494
1965	10	102	39	6,366
1969	10	102	42	6,565

Over 98 percent of the 6,500 farms in this report fall within the size of business of Economic Class I, II, and III as defined in the 1964 Census of Agriculture. These three classes include farms selling $10,000 or more of farm products a year.

The segment of Illinois agriculture that includes Economics Class I, II, and III farms is often referred to as "commercial farming." In 1964, there were 68,322 farms in Illinois with more than $10,000 of product sales. These farms represented 52 percent of the total number of farms and produced nearly 90 percent of the products sold from Illinois farms.

Although the record-keeping farms in this report are largely within the first three economic classes, they are not proportionately distributed among the groups. In 1964, the Census of Agriculture identified 3,832 Illinois farms with more than $60,000 in sales. Over one-third (34 percent) of these farms were enrolled in the Illinois Farm Business Farm Management Association. Of the 6,152 farms that sold from $40,000 to $59,000 of products, 24 percent participated in the farm record program. There were 32,881 Economic Class III farms in the 1964 Census of Agriculture (farms with sales ranging from $10,000 to $19,999). Only 730, or 2.2 percent, of these farms were enrolled in the record-keeping program.

The data presented in this report are group averages identified by size of business, type of farm, and quality of soil found on the farm. Where segments of Illinois agriculture are identified by these criteria, the data from record-keeping farms may be used with reasonable confidence, even though the record-keeping farms as a group do not represent a cross-section of all commercial farms in the state.

Uses for This Report

The management of a modern commercial farm involves decision making in the application of technology, the choice of a proper combination of crop and livestock enterprises, and effective business administration of the farming operations. A basic farm business analysis involves a careful study of past performance to detect problem areas and strengths in the farming operation. Also involved is the process of planning and developing future operations to attain the full potential of the land, labor, and capital resources available and to improve economic efficiency of the farm business.

The farm business summaries contained in this report are used by individual farmers to analyze their business operations and as a basis on which to develop plans for future farming operations. This report summarizes the information so that specialists working in agricultural extension, research, teaching, and agribusiness activities may use the data to assist them in the effective performance of their duties.

The data are presented in three sections. In the first part of the report (Tables 1 to 4), farm business trends and recent changes in farm income on Illinois farms are summarized. Economic forces and factors that contribute to these changing trends are identified.

In the second section, detailed livestock enterprise data are presented. These data (Tables 5 to 14) provide comprehensive and detailed information for use as resource data by all who are interested in livestock production. Because a large proportion of the feed grains and roughage produced on Illinois farms is marketed through livestock, the margins of income from livestock enterprises are important in interpreting the economic results of farming operations.

The third section (Tables 15 to 19) reports costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern and southern Illinois. The definitions of terms and accounting measures that precede these tables will aid in using the data.

SUMMARY OF ILLINOIS FARM BUSINESS RECORDS, 1968

Farm business trends in 1968

Illinois agriculture is based largely on crop production, especially the corn and soybean crops. The total value of corn and soybeans produced on Illinois farms in 1968 was equal to 54 percent of the total cash sales of crops, livestock, livestock products, and government payments in the same year. The five major crops of corn, soybeans, wheat, oats, and hay harvested were equal in value to 62.8 percent of the cash sales on Illinois farms in 1968.

Year-to-year variations in net farm income are related to variations in crop yields. In 1968 Illinois farmers produced record yields of soybeans and oats. Corn and wheat yields were below 1967 yields. Crops were generally planted under adverse conditions, but harvest weather was nearly ideal. While early crop reports indicated record high corn yields, unfavorable growing conditions at pollination and silking stages caused yields to be lower than expected.

In 1968 corn yields for the state, as recorded by the Illinois Crop Reporting Service, were 89 bushels per acre, 11 bushels below the average yield of 100 bushels in 1967, and 5 bushels below the previous record yield in 1965. Soybean yields in 1968 were 31.5 bushels per acre, 0.5 bushel above the 1967 yield and highest on record. Winter wheat yields were 36 bushels per acre, 5 bushels below the record high yield established in 1966. Corn and wheat acreage harvested was down 6 and 20 percent respectively from 1967, while soybean acreage was up 8 percent.

Crop and livestock prices. A second major determinant of change in farm income is the price farmers receive for crop and livestock products. In 1968 market prices received by farm account cooperators for farm crops were below the 1967 prices for all major grain products (see Table 14). Market prices for hogs averaged $18.54, down from the $18.85 received in 1967. Prices received for slaughter steers and heifers averaged $26.29, up $1.31 from the average price of a year earlier. Egg prices averaged 34 cents a dozen, up 4 cents from the 30 cents received in 1967. Milk prices averaged $4.89 per 100 pounds in 1968, up 22 cents from 1967 and up $1.12 from 1965.

Table 1. — Adjustments on Illinois Farms

	1961–62	1965–66	Change per farm
Acres in farm	357	390	33
Months labor used	20.5	20.1	−.4
Acres in row crops	195.6	245.2	49.6
Corn yield per acre	93.4	94.3	.9
Cwt. beef produced	257	301	44
Cwt. pork produced	734	808	74
Machinery investment	$ 9,083	$ 12,896	$ 3,813
Total investment	147,916	196,320	48,404
Feed and grain returns	22,146	31,542	9,396
Cash operating expenses and depreciation	15,839	22,326	6,487
Total non-feed costs	25,250	34,936	9,686
Value of farm production	30,475	45,026	14,551
Management returns	5,225	10,090	4,865

Farm adjustments. According to the Census of Agriculture, the average Illinois farm in 1964 contained 226 acres, compared with 196 acres per farm in 1959. Physical changes and changes taking place in investments, costs, and returns on record-keeping farms are shown in Table 1. The average results for 1961-62 were compared with those for 1965-66 on the same farms.

These results came from a study of 183 farmers who kept continuous records from 1961 to 1966. An equal number of hog, grain, and beef farms were selected from the northern two-thirds of the state. These were combined with an equal number of grain, hog, and dairy farms from the southern Illinois area.

The average age of the farm operators at the beginning of the period was estimated at 41. The U.S. index of prices received (1957-59 = 100) was 100 for 1961-62 and 106 for 1965-66. The index of prices paid was 105 for 1961-62 and 114 for 1965-66. Prices received were higher in 1965-66 than 1961-62 on record-keeping farms by 19 cents per bushel for corn, $5.44 per 100 pounds for hogs, 30 cents per 100 pounds for milk, and 6 cents per 100 pounds for cattle.

Acres per farm increased in this four-year period by 33 acres or about 8 acres per year. If this trend continues, the average size farm will be 475 to 500 acres by 1980. The total months of labor used changed very little. Livestock farms dropped a month from 23 months used at the beginning of the period. Grain farms stayed at 20 months. All farms averaged using about 20 months.

Even with a fixed labor supply the average farmers were adding acres to their farms, increasing their acreage of corn and soybeans, and increasing the size of their livestock enterprises each year. Note the $48,404 ($12,101 per year) increase in total investment per farm to operate these larger businesses. About 82 percent of this increase was caused by more land in the farm and higher land values. But the upward trend is also shown in the $3,813 per farm increase in machinery investment.

It took $6,487 ($1,621 per year) more cash in this four-year period for operating expenses and deprecia-

tion allowances. Major increases occurred in the expenditures for fertilizer, seed, herbicides, and insecticides.

During this period, the value of production on livestock farms showed a greater increase than on grain farms. The very favorable hog prices in 1965 and 1966 contributed to these higher returns. Results from 1967 and 1968 records show that returns are down, especially on grain farms. But costs continued their upward trend.

A similar study of 109 central Illinois farms comparing 1951-52 with 1958-59 showed almost identical rates of change as shown here for the sixties. If costs continue to increase, it will be necessary to allow for growth in the farm business in order to remain competitive. Growth with a constant labor supply means more capital per man. Management requirements will become more precise, and good financial management will be the key to success.

Income changes on Illinois farms

Comparative costs and returns between years and among major types of farming in northern and southern Illinois are reported in Tables 2 to 4. The separation of farms into northern and southern Illinois is based on soil-type regions, and divides the state approximately on an east-west line from Mattoon to Jacksonville. The sample of farms ranged between 260 and 339 acres in size, and averaged about 300 acres. Labor used on farms of this size averaged 14 months on grain farms, 16 months on hog and beef farms, and 19 months on dairy farms. The data in these tables are presented as if the farms were all owner-operated. Landlord and tenant shares of the business were combined where farms were leased.

Size of farm, type of farm, quality of soil, and managerial inputs were held reasonably constant over time by the sampling procedure used in selecting farms within each type of farm. Variations among 1967, 1968, and the 10-year average are due to changes in farm prices and costs, weather, and internal farming adjustments made within each system of farming. The data in these tables are particularly helpful for evaluating changes in farm costs and returns within a particular size and type of farm, and in making comparisons between types of farming. The data do not reflect overall farming adjustments resulting from farm enlargement or major changes in resource use (see Table 1).

Table 2. — Average Selected Total Farm Items on 260–339 Acre Northern Illinois Grain, Hog, and Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1968	1967	1959–68 average	1968	1967	1959–68 average	1968	1967	1959–68 average
Number of farms	78	121	148	69	80	92	28	21	22
Total acres	301	302	302	295	299	298	290	299	293
Soil-productivity rating	77	77	80	73	74	74	71	69	70
Total cash sales	$35,599	$33,546	$30,438	$52,368	$55,173	$47,523	$43,298	$47,934	$37,791
Less purchased feed and livestock	4,512	3,448	3,960	14,510	16,277	16,066	5,574	9,331	6,667
Net cash sales	31,087	30,098	26,478	37,858	38,896	31,457	37,724	38,603	31,124
Inventory change	−2,637	282	990	−536	−1,690	1,191	264	652	989
Farm products consumed	113	100	124	175	178	228	279	247	320
Value of farm production	28,563	30,480	27,592	37,497	37,384	32,876	38,267	39,502	32,433
Cash operating expenses	13,416	12,988	10,771	16,691	16,295	13,249	17,072	18,904	14,137
Annual depreciation	4,222	3,923	3,563	5,648	5,366	4,519	6,136	6,137	5,357
Farm and family earnings	**10,925**	**13,569**	**13,258**	**15,158**	**15,723**	**15,108**	**15,059**	**14,461**	**12,939**
Unpaid labor charge	4,357	3,761	3,164	4,788	4,073	3,431	5,344	4,671	4,126
Returns to capital and management	6,568	9,808	10,094	10,370	11,650	11,677	9,715	9,790	8,813
Interest charge on capital	10,064	9,456	7,866	10,296	10,114	7,968	10,081	9,960	7,973
Management returns	**−3,496**	**352**	**2,228**	**74**	**1,536**	**3,709**	**−366**	**−170**	**840**
Total cash income[a]	35,626	33,632	30,627	52,542	55,257	47,695	43,407	48,079	38,083
Total cash expenditures[a]	20,898	20,261	18,425	38,052	39,404	35,105	29,226	34,487	26,913
Cash balance	14,728	13,371	12,202	14,490	15,853	12,590	14,181	13,592	11,170
FARM INVESTMENT									
Livestock inventory	$ 5,949	$ 4,400	$ 4,896	$16,887	$18,194	$16,755	$15,269	$19,116	$16,352
Grain inventory	19,274	18,785	14,422	17,966	18,001	13,810	14,627	13,036	10,884
Remaining capital cost in:									
Machinery and auto	11,752	10,937	8,777	14,150	13,545	10,108	14,985	15,343	12,398
Buildings and fences	13,727	12,477	13,279	20,828	18,719	16,889	26,650	26,470	25,410
Soil fertility	67	49	246	78	72	242	32	22	153
Value of land (current basis)	175,449	166,429	141,099	152,539	150,056	121,765	144,696	138,019	112,177
Total farm investment	226,218	213,077	182,719	222,448	218,587	179,569	216,259	212,006	177,374

[a] Includes sales or purchases of capital items.

Table 3. — Average Selected Total Farm Items on 260–339 Acre Northern Illinois Beef Farms

	Beef farms		
	1968	1967	1959–68 average
Number of farms	38	56	56
Total acres	300	304	300
Soil-productivity rating	76	75	77
Total cash sales	$ 89,757	$ 72,619	$ 69,945
Less purchased feed and livestock	49,551	35,977	38,103
Net cash sales	40,206	36,642	31,842
Inventory change	2,617	−1,635	1,052
Farm products consumed	360	360	322
Value of farm production	43,183	35,367	33,216
Cash operating expenses	17,346	16,355	13,692
Annual depreciation	6,647	6,241	5,348
Farm and family earnings	**19,190**	**12,771**	**14,176**
Unpaid labor charge	4,716	3,940	3,400
Returns to capital and management	14,474	8,831	10,776
Interest charge on capital	13,282	12,615	9,989
Management returns	**1,192**	**−3,784**	**787**
Total cash income[a]	89,883	72,912	70,128
Total cash expenditures[a]	73,492	58,676	57,645
Cash balance	16,391	14,236	12,483
FARM INVESTMENT			
Livestock inventory	40,742	35,272	33,860
Grain inventory	21,282	22,497	17,087
Remaining capital cost in:			
Machinery and auto	16,550	15,495	11,712
Buildings and fences	30,229	29,582	24,410
Soil fertility	138	84	272
Value of land (current basis)	168,647	160,986	132,925
Total farm investment	277,588	263,916	220,266

[a] Includes sales or purchases of capital items.

The farm and family earnings measure includes returns to the farm family for all unpaid labor, interest on invested capital, and managerial inputs used in farming. Changes in value of farm inventories and value of farm products consumed are included as income. Farm and family earnings are calculated by accounting methods that are generally comparable to the accrual method of calculating taxable farm income for the federal income tax. Important differences in accrual income tax accounting methods are the provision for capital gains on livestock sales and the inclusion of interest paid as a farm expense.

The cash balance figure is the amount taken out of the farm business to pay for living costs, income and social security taxes, interest, debt repayment, and to add to savings. Purchases of new capital investments for the farm business have been included with total cash expenditures. Although the cash balance figure reflects the cash position of the farm business, it is influenced by purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

The investment per farm is for January 1 of each year. Physical quantities of grain and livestock are valued at farm market prices. Machinery, buildings, soil fertility, and auto are valued at remaining capital cost; that is, original cost less depreciation charged to date. Land is priced at current values. A basic value is established for each farm, based on a soil productivity rating, and is adjusted to a current value each year by using an index of land prices in Illinois.

Northern Illinois farms

Grain farms. Farm and family earnings on northern Illinois 300-acre grain farms in 1968 were $10,925 compared with $13,569 in 1967 (see Table 2). Most of the decrease in net income was caused by higher costs and by lower values on the grain inventory at the end of the year. Corn yields decreased 14 bushels per acre while soybean yields increased 3 bushels per acre over 1967. Farm costs increased $1,931 per farm while all inventory values of grain and livestock dropped $2,919 per farm from 1967. This combination of higher costs and lower returns resulted in the lowest returns for resources used on this size grain farm since 1959.

Hog farms. Farm and family earnings on 300-acre northern Illinois hog farms were $15,158 in 1968 compared with the 10-year average (1959 through 1968) of $15,108 (see Table 2). Steady hog and strong beef prices helped offset the effect of lower grain prices and lower corn yields in 1968 as compared with 1967 in maintaining the total value of farm production.

Farm costs increased $1,575 per farm over the 1967 costs, with the greatest increase in labor cost. Constant value of farm production, combined with the higher costs, resulted in the lowest returns to resources used on this size hog farm since 1963. While the average pounds of pork produced per farm has increased 28 percent since 1960-61 to about 100 litters, there is still need for increasing the output each year to compensate for the loss in income caused by increased costs.

Dairy farms. Farm and family earnings on 300-acre northern Illinois dairy farms in 1968 were $15,059 compared with $14,461 in 1967 and $12,939 for the 1959-68 average. The higher milk price of 22 cents per hundredweight for milk sold was offset by lower prices for crops produced. Cash operating expenses actually decreased $1,832 per farm, but labor and interest charges were up $794. In 1968 the $15,059 return on dairy farms was $4,134 more than grain farms of similar size and only $99 below hog farms of similar size.

Beef farms. Farm and family earnings on 300-acre northern Illinois beef farms in 1968 averaged $19,190 compared with $12,771 in 1967 and $14,176

for the 1959-68 average. Since 1958, earnings on this size farm have not exceeded $13,000 except in 1962, 1965, and 1968. A $1.31 higher average selling price for cattle sold in 1968, plus higher livestock inventory prices at the end of the year, helped offset the effect of lower corn yields, lower grain prices, and higher operating costs. The 10-year average (1959-68) management returns on beef farms are $1,441 lower than grain farms of similar size, and $2,922 lower than hog farms of similar size.

Southern Illinois farms

Grain farms. Farm and family earnings on southern Illinois 300-acre grain farms averaged $8,124 in 1968. This is $2,855 decline from 1967, and the lowest since 1960. The 18-bushel-per-acre lower corn yield, combined with lower grain prices and the $573 higher cash operating expenses per farm, resulted in a sharp drop in earnings.

Hog farms. Farm and family earnings on southern Illinois 300-acre hog farms averaged $12,193, a decrease of $1,778 from 1967 but still $1,027 above the 10-year average (1959-68). Corn and wheat yields were down 22 and 5 bushels per acre respectively from 1967.

Part of the effect of lower crop yields and lower grain prices was offset by higher livestock returns. Hog farms continue to show higher returns for all resources used than grain or dairy farms.

Dairy farms. Farm and family earnings on 300-acre southern Illinois dairy farms in 1968 were $12,846, a drop of $4,785 from 1967. This compares with the 10-year average (1959-68) of $11,053. Most of this decrease resulted from lower corn and wheat yields and from 5 to 20 percent lower grain prices than in 1967. Corn and wheat yields were down 21 and 8 bushel per acre respectively.

Part of the effect of lower crop income and higher cash operating expenses was offset by higher beef and milk prices. A combination crop and livestock enterprise farm has been able to maintain higher earnings on southern Illinois 300-acre farms than grain farms. The 10-year average income levels of dairy and hog farms is $11,053 and $11,166 respectively, compared with $9,371 from the same size grain farms.

Table 4. — Average Selected Total Farm Items on 260-339 Acre Southern Illinois Grain, Hog, and Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1968	1967	1959–68 average	1968	1967	1959–68 average	1968	1967	1959–68 average
Number of farms	42	41	48	31	25	37	25	19	25
Total acres	301	300	300	297	295	295	296	294	296
Soil-productivity rating	32	34	34	33	34	33	29	31	29
Total cash sales	$27,727	$28,397	$23,381	$40,409	$43,083	$35,364	$42,340	$45,354	$30,680
Less purchased feed and livestock	3,756	3,466	3,256	11,544	13,655	12,340	7,109	7,979	5,450
Net cash sales	23,971	24,931	20,125	28,865	29,428	23,024	35,231	37,375	25,230
Inventory change	−964	428	806	131	1,224	1,688	−218	2,123	1,369
Farm products consumed	118	174	159	138	125	217	365	304	347
Value of farm production	23,125	25,533	21,090	29,134	30,777	24,929	35,378	39,802	26,946
Cash operating expenses	11,163	10,590	8,528	12,713	12,630	10,317	16,381	16,260	11,564
Annual depreciation	3,838	3,964	3,191	4,228	4,176	3,446	6,151	5,911	4,329
Farm and family earnings	**8,124**	**10,979**	**9,371**	**12,193**	**13,971**	**11,166**	**12,846**	**17,631**	**11,053**
Unpaid labor charge	4,163	3,858	3,097	4,073	3,696	3,180	4,784	4,141	3,685
Returns to capital and management	3,961	7,121	6,274	8,120	10,275	7,986	8,062	13,490	7,368
Interest charge on capital	4,610	4,654	3,628	5,227	5,036	3,899	5,734	5,921	4,170
Management returns	**−649**	**2,467**	**2,646**	**2,893**	**5,239**	**4,087**	**2,328**	**7,569**	**3,198**
Total cash income[a]	27,808	28,475	23,521	40,453	43,322	35,446	42,463	45,388	30,786
Total cash expenditures[a]	19,266	19,242	15,793	31,028	33,383	27,810	32,217	35,325	23,133
Cash balance	8,542	9,233	7,728	9,425	9,939	7,636	10,246	10,063	7,653
FARM INVESTMENT									
Livestock inventory	$ 4,108	$ 5,215	$ 4,103	$12,316	$13,324	$11,147	$12,188	$15,402	$10,936
Grain inventory	11,238	9,827	7,490	11,806	12,414	8,352	10,772	10,418	7,214
Remaining capital cost in:									
Machinery and auto	12,502	11,099	8,769	12,238	10,763	8,349	16,530	14,736	11,550
Buildings and fences	5,189	6,939	6,047	9,176	7,780	7,900	16,349	18,067	12,272
Soil fertility	97	188	418	74	74	363	204	120	381
Value of land (current basis)	65,438	66,457	54,697	62,249	59,371	49,008	59,299	59,911	47,253
Total farm investment	98,572	99,725	81,524	107,859	103,726	85,119	115,342	118,654	89,606

[a] Includes sales or purchases of capital items.

LIVESTOCK ENTERPRISES

Table 5 shows the returns per $100 feed fed to various livestock enterprises and the price of corn during each of the past 15 years. Fifteen-year (1954 through 1968) averages are also shown. The difference between the average return figure and $100 feed cost represents the margin available to pay labor, depreciation on equipment, cash expenses other than feed, and interest on investment, and also to provide for profit.

The margin needed to cover nonfeed costs varies with the kind of livestock and depends on the proportion of total production costs represented by feed. The 15-year averages represent the approximate level of returns at which farmers have been willing to maintain livestock production. This average may not represent break-even returns on all farms because some farmers may discount market prices for some resources used in producing livestock. If a farmer already has facilities for livestock, he need only cover operating costs to continue production. However, when he views livestock production as a new or long-run enterprise, he hopes to cover all costs — fixed and variable — or he may not undertake the enterprise.

As individual farmers try to increase profits, they tend to curtail livestock production when returns per $100 of feed fed are below the 15-year average and to increase production when returns are above average. This tendency on the part of producers causes supplies of livestock products to fluctuate.

Feeder-cattle returns vary greatly from year to year. Long-run average returns shown here indicate the cattle-feeding business is not paying average market rates for all resources used (see Table 7). Above-average skills are needed in buying, selling, and feeding to meet competition of other uses for time and money on farms feeding cattle. It is difficult to identify cyclic income movements over a 15-year period in the beef-cattle industry because it is more complex and adjusts more slowly than other livestock enterprises.

Dairy and poultry returns fluctuate less than beef-cattle returns from year to year. In all three enterprises 15-year average returns are below the margin needed to cover all fixed and variable costs. The implication is that these enterprises compete most favorably on farms with plentiful labor, capital, and management resources that have few alternative uses.

Raising livestock is becoming more competitive. Average profit margins are very narrow. Nonetheless, large numbers of farmers are willing to stay in business as long as their returns cover only operating costs. Expansion plans involving large investments for new facilities should be based on estimated returns that are high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years.

Table 5. — Returns per $100 Feed Fed to Different Classes of Livestock

Year	Beef-cow herds	Dairy-cow herds	Feeder cattle bought	Native sheep raised	Feeder pigs	Hogs	Poultry	Yearly price of corn
1954	95	141	126	97	...	154	104	$1.46
1955	94	168	106	103	95	109	142	1.28
1956	103	177	117	137	129	142	133	1.30
1957	134	189	143	138	149	172	136	1.15
1958	162	199	144	98	144	180	142	1.10
1959	147	191	112	102	92	114	123	1.10
1960	129	200	117	108	143	164	157	1.03
1961	139	196	116	110	132	164	150	1.01
1962	149	190	148	126	129	159	144	.98
1963	117	171	88	126	108	131	141	1.11
1964	107	174	112	124	122	142	141	1.12
1965	127	174	151	143	176	210	143	1.15
1966	132	190	117	129	140	178	168	1.23
1967	138	199	119	117	123	154	128	1.17
1968	156	210	142	133	134	170	167	1.02
1954-68 aver.	129	185	124	119	130[a]	156	141	1.15

[a] Fourteen-year average.

Hog enterprises

The information in Table 6 is based on a sample of 677 farms farrowing 10 or more litters per year. Farms

Table 6. — Hog Enterprises, 1968

	All farms	Litters farrowed	
		10–49	100+
Number of farms	677	277	159
Average per farm			
Pounds of pork produced	129,262	53,661	274,192
Total returns	$23,858	$9,720	$51,062
Value of feed fed	$14,067	$5,822	$29,749
Returns per $100 feed fed	$ 170	$ 167	$ 172
Returns above feed per litter	$ 127	$ 126	$ 128
Numbers of litters farrowed	77	31	167
Pigs farrowed per litter	9.0	9.0	8.9
Pigs weaned per litter	7.3	7.3	7.2
Number of pigs weaned	562	225	1,221
Number that died after weaning	20	9	43
Death loss, percent of pounds produced	1.3	1.5	1.3
Weight per hog sold	237	240	236
Price received per 100 pounds	$ 18.54	$ 18.25	$ 18.67
Feed cost per 100 pounds produced	$ 10.88	$ 10.85	$ 10.85
Feed per 100 pounds produced			
Farm grains, lb.	342	339	338
Commercial feed, lb.	74	73	76
Total concentrates, lb.	416	412	414
Pasture (pasture days)	.5	.6	.4
Cost per 100 pounds of commercial feeds	$ 6.14	$ 6.16	$ 6.04
Cost per 100 pounds of concentrates	$ 2.60	$ 2.60	$ 2.61

were omitted from the sample if the number of hogs purchased exceeded 10 percent of pigs weaned. This eliminated from the sample those farms with combined farrowing and feeder-pig operations. Feeder-pig enterprise information is included in Table 9. The average size of the hog enterprise on all record-keeping farms has been increasing at the rate of about 3 litters per year, from 41 litters (229 pigs weaned) per farm in 1956 to 77 litters (562 pigs weaned) in 1968.

Returns per $100 feed fed to hogs were $170 in 1968. This was a $16 increase from 1967. In 1968 the average price received per 100 pounds of pork sold was down 31 cents while the average price per bushel of corn fed (see Table 5) was down 15 cents per bushel.

The 1968 hog enterprise records reported in Table 6 were also sorted by the number of litters produced. One group farrowing between 10 and 49 litters averaged 31 litters, while the group farrowing 100 or more litters averaged 167 litters.

There were no significant differences in production efficiency between the two groups. Feed cost per 100 pounds of pork produced was the same for both groups. Prices received for hogs sold by the larger producers were 42 cents higher than those received by the smaller producers.

The nine-year average return above feed cost per litter shown in Table 7 is $115, $12 below the 1968 returns. On the basis of detailed cost records, which indicate that feed makes up 70 percent of the total cost of producing hogs, farmers would require returns above feed cost of $78 a litter to pay for all non-feed costs.

Direct cash costs only amounted to $20 a litter. Since 1961 the average Illinois hog producer has received $37 return per litter ($115-$78) above all feed and nonfeed costs each year. While this return appears to be a profitable one, the modest expansion in hog numbers suggests that a rather large profit margin is required to compensate farmers for the risk and detailed management involved in hog production when compared to other alternative uses for the same resources. Farmers who have the capital and skill required to manage hogs may want to invest more resources in this enterprise.

The costs, returns, and other characteristics of three types of hog enterprises for the 1966-1968 period are shown in Table 8. Returns above feed cost and estimated veterinary, power, buildings, equipment, and interest costs per pig for the complete farrow-to-finish operation averaged $12.51 for the three-year period. During the same period these returns from the enterprises growing feeder pigs was $7.28 per pig and from the enterprises finishing feeder pigs was $3.34, for a combined total of $10.62. The difference of $1.89 per pig was caused by the cost of transferring feeder pigs from one farm to another. Greater death losses, higher feed costs, and added marketing costs result from this transfer. There was no difference between the farms growing feeder pigs and the combined farrowing and finishing enterprises in terms of the number of pigs weaned per litter.

Table 7. — Variation in Returns to Livestock-Enterprise Units, 1960–1968

Year	Hogs (litter)	Feeder pigs (175 lb. gain)	Feeder cattle (500 lb. gain)	Dairy cattle (cow)	Beef herd (cow)	Poultry laying flock (hen)
	Returns above cost of feed and purchased animals					
1960	$105	$7.22	$16	$228	$36	$2.30
1961	105	5.32	15	232	43	1.98
1962	98	4.75	43	219	54	1.72
1963	55	1.33	−11	193	19	1.70
1964	76	3.71	11	208	8	1.63
1965	204	14.84	47	216	30	1.71
1966	162	8.20	17	292	39	2.75
1967	107	4.29	18	314	43	1.28
1968	127	6.19	39	350	60	2.26
9-year average	115	6.21	21	250	37	1.93
Nonfeed costs, direct cash only[a]	20	1.30	8	78	13	.40
Total nonfeed costs[b]	78	6.12	33	316	86	1.92

[a] Includes veterinary costs, taxes on equipment and livestock, fuel and equipment repair costs, and other direct cash expenses, from Table 6, Farm Management Manual, AE-4200.

[b] Estimates are based on feed representing 70 percent of the total cost for hogs, 75 percent for feeder pigs, 85 percent for feeder cattle, 50 percent for dairy, 55 percent for beef cows, and 60 percent for poultry.

Table 8. — Comparison of Feeder Pig Growing, Finishing, and Farrowing and Finishing Enterprises on Illinois Farms, 1966–1968 Averages

	Growing feeder pigs	Finishing feeder pigs	Farrowing and finishing
Number of farms	13	116	708
Number litters per farm	82		76
Number pigs weaned or bought per farm	604	447	561
Number pigs weaned per litter	7.4		7.4
Percent of animals dying after weaning or purchase	1.7	3.8	3.4
Weight per animal sold or bought	70[a]	54	
Price received or paid per 100 lb.	$29.88[a]	$35.95	
Feed cost per 100 lb. produced	$13.71	$11.02	$11.55
Return above feed cost per pig	$10.55	$ 5.73	$17.86
Estimated veterinary, power, buildings, equipment, and interest costs per pig[b]	$ 3.27	$ 2.39	$ 5.35
Return to labor, management, and overhead per pig	$ 7.28	$ 3.34	$12.51
Estimated hours of labor per pig[b]	1.25	1.0	2.0

[a] Includes market and breeding hogs.

[b] Adapted from Detailed Cost Report for Central and Western Illinois, 1964 and 1965, AERR 85, Dept. Agr. Econ., Univ. Ill. at Urbana-Champaign, 1967.

On farms growing feeder pigs, 1.7 percent of the pigs died after weaning, while 3.8 percent of the pigs died on farms finishing feeder pigs, for a combined total of 5.5 percent. Only 3.4 percent of the pigs died after weaning on farms that combined farrowing and finishing operations.

These data indicate that the farrow-through-finish system earns more profits per pig than the other systems. However, no one system is best for all Illinois farms. Each system requires different proportions of feed, labor, capital, and management. The best choice of a system comes from matching available resources with the requirements for each system, so that the greatest net farm income will be produced.

Feeder-cattle and feeder-pig enterprises

Calendar-year operations for feeder-cattle and feeder-pig enterprises are presented in Table 9. These enterprise summaries involve weights and values on partly finished animals purchased in prior years as well as on animals purchased in the current year.

Pork produced per farm from feeder-pig enterprises was 70,706 pounds in 1968 (see Table 9). In units of 175 pounds produced per head, this amounted to 404 head fed per farm in 1968 compared with 224 head in 1958.

Returns above the cost of feed and purchased animals shown in Table 7 for 1960 through 1968 averaged $6.21 per unit of 175 pounds of gain. This compares with the estimated return of $6.12 required to cover all of the nonfeed costs. If the very high returns above feed cost in 1965 were excluded in the nine-year average, the average would have been about $2 per head short of the estimated total returns needed to pay all costs.

Table 9. — Feeder-Cattle and Feeder-Pig Enterprises, 1968

	Feeder cattle	Feeder pigs
Number of farms	332	105
Average per farm		
Total pounds produced	89,749	70,706
Total returns	$23,754	$ 9,915
Value of feed fed	$16,707	$ 7,413
Returns per $100 feed fed	$ 142	$ 134
Death loss, percent of pounds produced	2.0	2.2
Average weight purchased	576	57
Price paid per 100 pounds	$ 26.97	$ 32.85
Price received per 100 pounds	$ 26.29	$ 18.98
Feed cost per 100 pounds produced	$ 18.62	$ 10.48
Feed per 100 pounds produced		
Grain, lb.	600	360
Protein and mineral feeds, lb.	60	62
Total concentrates, lb.	660	422
Hay, lb.	131	.4
Silage, lb.	767	...
Pasture (pasture days)	2	...

Assuming a 500-pound unit of gain equals one head of feeder cattle, the 89,749 pounds of beef produced per farm in 1968 (Table 9) is 179 head. This is 81 head more cattle fed per farm than in 1958. Returns per $100 feed fed for feeder-cattle enterprises were $142 in 1968 compared with $119 in 1967 and $124 for the past 15-year average (see Table 5).

The prices paid for feeders bought were 60 cents per 100 pounds higher during 1968 than in 1967, while prices received for cattle sold in 1968 were $1.31 higher. Average weight purchased remained steady at 576 pounds per head. The lower feed cost of $18.62 per 100 pounds produced in 1968 compared with $19.18 in 1967 was due largely to the 15-cent lower market price for corn (see Table 5).

Pounds of concentrates and hay used per 100 pounds of beef produced decreased 47 and 49 pounds respectively since 1960. The pounds of silage used has nearly doubled during the same period. The end result of this shift has been increased production and utilization of crops from a fixed land resource. Mechanization of the silage feeding operation has also contributed to reduced labor per unit of production.

These data do not show the wide variation in profits that exists among cattle-feeding programs. Tables 5, 7, and 9 reflect the composite results of all types of feeder cattle enterprises in Illinois as to quality and age of cattle fed. The data reported are heavily weighted with good-to-choice calves and yearlings as the predominant cattle-feeding system. Many farmers are now feeding more than one drove of cattle each year to provide a better utilization of fixed investments in mechanized feedlots.

Returns above cost of feed and purchased animals shown in Table 7 averaged $21 for each head of feeder cattle gaining 500 pounds for the nine years 1960 through 1968. During this period returns above feed costs per feeder have ranged from a loss of $11 in 1963 to a high of $47 in 1965. Except for 1962, 1965, and 1968, returns above feed cost have been below the estimated $33 per feeder required to pay for all nonfeed costs for the average cattle feeder.

The direct cash costs exclusive of interest costs associated with cattle feeding average about $8 per feeder. Returns above feed costs have exceeded the direct cash costs per head for all years except for 1963.

Large numbers of cattle feeders in Illinois are apparently willing to feed cattle if their return is sufficient to cover feed and cash costs but short of paying average market rates for some of the fixed and farm overhead costs.

Farmers' values, goals, and attitudes have been important in maintaining production on the one hand, while the dictates of the market, technological change,

and shifts in basic supply and demand factors are causing the need for change on the other hand. The low returns reflected in this average of all feeder cattle enterprises would suggest that for cattle feeding to be profitable, farmers must produce the kind of beef the consumer wants at the lowest possible costs. Farmers considering expansion of this enterprise on farms where there are no nonmarketable feeds, unemployed labor, or fixed capital investments should budget and plan carefully before they make new investments. New feedlot facilities generally increase direct cash costs when compared with the fixed costs associated with older facilities.

Dairy enterprises

The minimum size of herd included in this analysis was 10 milk cows. The average size of dairy herd has increased at the rate of about one cow per year since 1957. The total number of milk cows in Illinois has been declining at the rate of about 4 percent a year in this same period, but total pounds of milk produced in the state has been declining only about 2 percent a year. While there are 42 percent fewer milk cows in the state than 10 years ago, the remaining cows are in herds that are 60 percent larger and that produce 23 percent more milk per cow.

Returns per $100 of feed fed in dairy enterprises in 1968 were $210, up $11 from 1967 and one of the highest returns on record (see Table 5). Higher milk and beef prices and lower feed costs are reflected in the 1968 returns.

Dairy farmers have reduced the amount of pasture and increased the amounts of grain and silage fed. Pasture days per unit (1,000 pounds of milk or 100 pounds of beef) remained at 15 days prior to 1959, but since 1960 have declined to 6 days in 1968.

The dairy herds in Table 10 were divided into three groups: herds with no pasture days per animal unit, those with 1 to 119 days, and those with 120 days or more. Each year a few more farmers have been adopting the practice of feeding cows in drylot. Dairy herds with no direct grazing averaged 45.2 cows per farm compared with 31.3 cows per farm where a full pasture season was used.

The main difference among these three groups of dairy herds is the amount of land required per cow to produce roughage. When pasture and hay yields are figured at 150 pasture days and 3 tons per acre respectively, farms with drylot feeding required only 1.6 acres per cow to produce grass-legume forages, while farms with over 120 pasture days per animal unit used 2.9 acres. Additional roughage was obtained through the corn silage on the no-grazing farms.

Part of the additional cost of harvesting roughage to be fed in drylot is included in the cost of feed. Farmers using the drylot system must relate the higher cost of labor and machinery to the increased returns that may result from the following factors: shifting land from pasture to grain crops; an increase in size of dairy herd on fixed acres of hay and pasture; or higher production per cow.

Return above cost of feed was $350 per cow in 1968 (Table 7). This compares with the nine-year average of $250. The returns above feed cost per cow required to pay for all nonfeed costs are estimated to be about $316 per cow. This assumes that feed represents 50 percent of the total cost of the dairy enterprise while labor and capital make up the other 50 percent.

Table 10. — Dairy-Cattle Enterprises, 1968

	All farms	Pasture days per animal unit		
		0	1–119	120 or more
Number of farms	253	86	87	80
Average per farm				
Number of cows in herd	40.0	45.2	42.9	31.3
Number of milk cows	39.9	45.2	36.2	31.2
Percent of milk cows dry	15	15	15	15
Animal units in herd	73.6	77.9	73.4	53.4
Pounds of beef produced	21,554	24,907	22,369	17,062
Total returns	$26,631	$30,197	$28,927	$20,301
Value of feed fed	$12,684	$15,211	$13,448	$ 9,136
Returns per $100 feed fed	$ 210	$ 199	$ 215	$ 222
Returns above feed per milk cow	$ 350	$ 332	$ 362	$ 358
Total pounds of milk produced	466,199	522,308	507,187	361,299
Pounds of milk per milk cow	11,684	11,555	11,850	11,580
Pounds of butterfat per milk cow	430	426	434	428
Pounds of beef per cow in herd	539	551	521	547
Death loss, percent of pounds produced	8.4	9.1	8.4	7.3
Feed cost per unit[a]	$ 18.60	$ 19.72	$ 18.40	$ 17.18
Price received for:				
100 lb. milk	$ 4.89	$ 4.97	$ 4.88	$ 4.77
100 lb. beef	$ 19.72	$ 19.77	$ 19.27	$ 20.26
Feed per unit of milk and beef:				
Grain, lb.	312	320	302	313
Protein and minerals, lb.	64	73	65	51
Total concentrates, lb.	376	393	367	364
Hay and dry roughage, lb.	341	325	343	363
Hay silage and soilage, lb.	386	671	303	66
Corn and other silage, lb.	717	860	716	495
Pasture (pasture days)	6	...	6	16
Pasture days per animal unit	59	...	55	156

[a] 1,000 pounds of milk or 100 pounds of beef.

Table 11. — Beef-Cow Enterprises, 1968

	All farms	Calves sold	Calves fed out
Number of farms	242	99	105
Average per farm			
Number of cows in herd	32.2	32.1	31.2
Animal units in herd	46.3	42.9	48.1
Total pounds produced	21,596	16,767	25,735
Total returns	$ 5,313	$ 4,086	$ 6,280
Value of feed fed	$ 3,396	$ 2,417	$ 4,214
Returns per $100 feed fed	$ 156	$ 169	$ 149
Pounds of beef per cow in herd	671	522	825
Average weight per head sold	713	555	884
Pounds of death loss	892	765	990
Percent of pounds	4.1	4.6	3.8
Feed cost per unit[a]	$ 15.73	$ 14.42	$ 16.37
Price received per 100 pounds	$ 24.79	$ 24.58	$ 24.77
Feed per unit of milk and beef			
Grain, lb	204	58	280
Protein and mineral feeds, lb	27	15	33
Total concentrates, lb	231	73	313
Hay and dry roughage, lb	458	571	407
Hay silage, lb	51	25	48
Corn and other silage, lb	179	104	208
Pasture (pasture days)	41	52	35

[a] 1,000 pounds of milk or 100 pounds of beef.

Dairy returns above feed costs per cow have been among the highest on record in 1966, 1967, and 1968. Gross returns from the dairy enterprise in 1967 and 1968 have been high enough to pay cash expenses and market prices for all feed, labor, depreciation, and interest on investment. Reduction in the total number of cows in production, combined with steady demand for milk, has helped dairy herds in 1966, 1967, and 1968 provide returns competitive with those from other uses for feed, labor, and capital. As dairy herds become larger and as costs become higher, there is greater need for the dairy enterprise to be managed as a profit-making business.

Beef-cow herd

The minimum size of a beef-cow herd included in Table 11 was 10 or more cows. Farms with combinations of cow herds and purchased feeder cattle were not included. In addition to all farms, Table 11 shows an analysis of cow herds where calves were sold at weaning time, comparing them with those where calves were finished to slaughter weights. The average size of cow herd on all farms has changed little since 1956, ranging from 25 to 32 cows. Most Illinois farmers maintain a beef-cow herd as a supplemental enterprise to market nonsalable feeds and labor.

Returns per $100 feed fed to beef-cow herds in 1968 averaged $156, up $18 from 1967. Lower feed costs and higher beef prices during 1968 continued to raise cow herd returns from the low level of 1964.

In 1968 farms that sold calves received $52 per cow above value of feed fed, and farms that sold cattle at slaughter weights received $66 per cow above value of feed fed. These returns have increased each year since the low returns of only $6 per cow in 1964. The higher returns for those who sold slaughter cattle must be balanced against the added costs for labor, buildings, and capital required to feed out the calves produced from the cow herd.

Poultry enterprises

The minimum size of flock included in Table 12 is 100 hens. The average size of flock, omitting farms with less than 100 hens, has increased from 353 hens in 1957 to 1,301 in 1968. In the same period, pounds of feed concentrates per dozen eggs, or 1½ pounds of weight produced, have declined steadily each year from 6.8 in 1957 to 5.3 pounds in 1968. This change in

Table 12. — Poultry Enterprises, 1968

	All farms	Number of hens per farm			
		100–299	300–999	1,000–1,999	2,000 and over
Number of farms	112	51	37	7	17
Average per farm					
Pounds of poultry produced	1,493	508	745	2,155	5,804
Totals returns	$6,455	$ 750	$ 1,843	$ 6,873	$33,436
Value of feed fed	$3,873	$ 638	$ 1,483	$ 4,757	$18,414
Returns per $100 feed fed	$ 167	$ 118	$ 124	$ 144	$ 182
Returns above feed cost per hen	$ 1.98	$ .63	$ .81	$ 1.50	$ 2.31
Average number of hens	1,301	177	443	1,407	6,496
Eggs produced per hen	220	162	179	195	228
Percent production	60	44	49	53	62
Feed requirement units[a]	24,268	2,728	7,099	22,297	127,479
Feed cost per unit	$ .16	$ .23	$ .20	$ .21	$ .14
Pounds of concentrates per unit	5.3	7.8	7.0	6.8	4.8
Cost per 100 pounds of concentrates	$ 3.02	$ 3.00	$ 2.98	$ 3.15	$ 3.02
Price per pound sold	$ .07	$ .10	$ .08	$ .08	$ .07
Price per dozen eggs sold	$ .34	$ .30	$ .32	$ .35	$ .34
Pounds of death loss	848	171	402	1,090	3,748

[a] One dozen eggs or 1.5 pounds of weight produced.

the feed-to-product ratio over the past 10 years is significant to the poultry enterprise.

For 1968 the feed cost per dozen eggs was 16 cents. The return above feed cost per hen of $1.98 in 1968 was $1.06 above the 1967 return and is near the nine-year average of $1.93 (Table 7).

Farms with over 2,000 hens had returns above feed cost per hen of $2.31 compared with only 63 cents on farms with 100 to 299 hens (Table 12). This difference may not reflect the actual contribution of poultry laying flocks to farm income, since small flocks may utilize inputs of labor, equipment, and buildings that have limited alternative uses. However, the higher production per hen on the farms with larger flocks indicates better management and a potentially higher return for labor and capital.

Sheep enterprises

Sheep production is a minor enterprise on record-keeping farms. The minimum size of enterprise in Table 13 was set at 3 animal units. One animal unit of sheep is defined as 750 pounds of liveweight. Returns per $100 feed fed in 1968 were $133 for native flocks. Pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. The majority of Illinois farmers who keep sheep do so as a supplemental enterprise to market nonsalable feeds and labor.

Table 13. — Sheep Enterprises, 1968

Items	Native flocks
Number of farms	80
Average per farm	
Pounds of wool and mutton produced	3,461
Total returns	$ 798
Value of feed fed	$ 607
Returns per $100 feed fed	$ 133
Percent lamb crop	114
Pounds of death loss	564
Death loss, percent of pounds produced	16.3
Feed cost per 100 pounds produced	$ 17.54
Price received per 100 pounds	$ 25.47
Feed per 100 pounds produced	
Concentrates, lb	278
Hay, lb	616
Silage, lb	37
Pasture (pasture days)	40

DEFINITION OF TERMS AND ACCOUNTING MEASURES

Soil-productivity rating

An average index representing the inherent productivity (low level of management) of all tillable land in the farm. Individual soil types on each farm are assigned an index ranging downward from 100.

Type of farm

Sampling technique. The records in each size group for northern Illinois were sampled to provide a proportional representation of all farms of that size range according to the 1964 census.

Grain farms. Farms where the value of feed fed was *less* than one-half of the feed and grain returns and value of feed fed to dairy or poultry was not more than one-sixth of the feed and grain returns.

Hog or beef farms. Farms where the value of feed fed was *more* than one-half of the feed and grain returns and either hog or beef-cattle enterprises received more than one-half of the value of feed fed.

Dairy or poultry farms. Farms where the value of feed fed was *more* than one-half of feed and grain returns and either dairy or poultry enterprises received more than one-third of the value of feed fed.

Cost items

Value of feed fed. Includes grains priced per bushel at the farm average as follows: corn — $1.02; oats — 65 cents; barley — 84 cents; soybeans — $2.52; rye — $1.00; wheat — $1.25. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 13 cents per animal unit pasture day. A pasture day represents an intake of approximately 20 to 25 pounds of dry matter. It has been defined as

Table 14. — Average Prices Received and Paid by Farm Record Keepers

Items	1968		1967	
	Northern Illinois	Southern Illinois	Northern Illinois	Southern Illinois
Grain prices				
Corn sold	$1.00	$1.00	$1.16	$1.13
Soybeans sold	2.53	2.42	2.66	2.55
Wheat sold	1.24	1.18	1.46	1.38
Oats sold	.69	.83	.70	.76
Corn purchased	1.03	1.01	1.10	1.13
Oats purchased	.73	....	.75	.90
Livestock prices				
Hogs, all weights	$18.54		$18.85	
Fat cattle, all weights	26.29		24.98	
Feeder cattle, all weights, prices paid	26.97		26.37	
Dairy cattle, all weights	19.72		18.51	
Sheep, all weights	25.47		23.38	
Poultry	.07		.08	
Milk	4.89		4.67	
Eggs	.34		.30	

16 pounds of total digestible nutrients (TDN) from pasture.

Cash operating expenses. Includes annual cash outlays for nondepreciable items of fertilizer, machinery repairs, machine hire, gas and oil, electricity and telephone, farm share of auto, hired labor, seed and crop expense, taxes, building repairs, livestock, and miscellaneous expense. It does not include purchased feed and livestock since these have been deducted from gross receipts in computing the value of farm production.

Machinery and equipment. Includes depreciation, repairs, machine hire, gas and oil, electricity and telephone, and farm share of auto.

Labor. Includes hired labor plus family and operator's labor charged in 1968 at $350 and $325 a month respectively for northern and southern Illinois.

Interest charge on capital. Interest charged at 6 percent on January 1 inventory of remaining capital investment in grain, livestock, machinery and auto, buildings, and soil fertility, plus 4 percent interest on bare land priced at current land values.

Total nonfeed costs. Includes cash operating expenses, depreciation, and charges for unpaid labor and interest. Purchased feeds and livestock are omitted.

Value of land (current basis). A basic value on bare land is established for each farm according to the soil-productivity rating. This basic value is adjusted each year according to the index of land prices in Illinois as reported by the USDA.

Return items

Feed and grain returns. The sum of grain and feed sales, value of all feed fed (except milk), and change in value of feed and grain inventories less the value of feed purchased.

Value of farm production. Total cash sales of products and services, less purchased feed and livestock, plus change in inventory values of grain and livestock, plus value of farm products consumed.

Farm and family earnings. Value of farm production less cash operating expenses and depreciation. This figure includes the return to the farm and family for unpaid labor, interest on invested capital, and returns to management.

Labor and management earnings. Farm and family earnings less the value of family labor and interest charge on capital invested. This is the residual return to operator's labor and management efforts.

Capital and management earnings. Farm and family earnings less a charge for all unpaid labor.

Management returns. The residual surplus left after a charge for unpaid labor and interest charge on capital are deducted from farm and family earnings.

Table 15. — Average Costs, Returns, and Financial Summary of Grain Farms by Size and Soil Rating, Northern Illinois, 1968

	GRAIN FARMS WITH SOIL RATING 76–100						GRAIN FARMS WITH SOIL RATING 56–75				
Range in size (total acres)	180–259	260–339	340–499	500–649	650–799	800+	260–339	340–499	500–649	650–799	800+
Number of farms	90	123	174	106	46	34	56	91	28	23	12
Size of farm	226	301	423	567	702	965	299	402	558	723	935
Acres of tillable land	213	282	397	518	652	877	272	360	505	656	750
Soil rating on tillable land	85	85	84	84	84	82	68	68	67	70	68
Hens, number	72	8	2	...	1	...	4	21	5	...	...
Dairy cows, number	1.3	...	.5	...	...	...	...	1.0	...	...	...
Beef produced, hundredweight	20	64	78	134	184	368	131	102	96	146	263
Pork produced, hundredweight	166	217	115	275	270	356	275	246	242	404	465
DOLLAR COSTS PER FARM											
Soil fertility	$ 2,631	$ 3,310	$ 5,401	$ 6,093	$ 8,848	$12,305	$ 3,110	$ 4,372	$ 6,122	$ 8,952	$10,165
Buildings and fence	1,542	1,542	1,883	2,577	3,021	4,696	1,790	1,671	1,974	2,597	4,365
Machinery and equipment	5,625	7,047	8,927	11,587	13,953	19,374	6,766	8,415	10,440	14,282	14,175
Labor	4,475	4,912	5,391	6,879	8,260	11,373	4,682	4,997	6,345	8,388	9,083
Taxes	2,190	2,806	3,588	4,700	5,894	7,965	2,295	2,904	3,937	5,473	4,997
Seed expense	683	955	1,612	1,646	2,163	3,052	830	976	1,645	2,292	2,520
Crop expense	1,315	1,391	2,294	3,344	3,680	6,008	1,453	1,835	3,314	4,164	5,619
Livestock and miscellaneous expense	492	485	509	730	729	1,183	512	602	674	893	899
Interest charge on capital	8,511	11,020	14,991	19,402	24,154	32,705	8,890	11,230	15,128	20,279	23,130
Total nonfeed costs	27,464	33,468	44,596	56,958	70,702	98,661	30,328	37,002	49,579	67,320	74,953
Total value of feed fed	2,783	3,589	3,106	5,133	6,068	9,894	5,574	4,743	4,420	7,645	9,567
DOLLAR RETURNS PER FARM											
Livestock returns above feed cost	$ 1,870	$ 2,107	$ 1,367	$ 3,340	$ 3,332	$ 6,624	$ 3,075	$ 3,194	$ 2,316	$ 3,327	$ 6,650
Feed and grain returns	19,824	26,347	38,576	48,593	64,332	88,324	23,352	30,747	46,120	60,758	66,671
Other cash income	663	832	1,735	1,856	2,553	3,422	1,247	1,539	1,750	2,720	2,257
Total value of farm production	22,357	29,286	41,678	53,789	70,217	98,370	27,674	35,480	50,186	66,805	75,578
Management returns	−5,107	−4,182	−2,918	−3,169	−485	−291	−2,654	−1,522	607	−515	625
Farm production per $1.00 of nonfeed costs	.81	.88	.93	.94	.99	1.00	.91	.96	1.01	.99	1.01
Farm production per man	20,959	25,103	32,267	32,932	35,108	37,714	24,970	28,574	34,218	33,826	36,277
FINANCIAL SUMMARY											
Cash sales of products and services	$28,074	$36,765	$48,105	$61,830	$82,037	$115,271	$34,164	$41,122	$57,031	$76,672	$85,683
Sales of capital items	60	2	199	92	357	586	58	91	131	607	58
Total cash income	28,134	36,767	48,304	61,922	82,394	115,857	34,222	41,213	57,162	77,279	85,741
Purchased livestock	1,517	1,843	2,232	4,742	6,062	8,697	3,587	2,909	3,830	3,802	9,321
Purchased feed	1,255	1,819	1,360	1,962	1,463	5,420	1,968	2,237	1,994	2,563	2,569
Cash operating expenses	11,010	13,725	19,697	25,409	32,466	48,350	13,035	16,635	24,364	32,721	36,535
Purchase of capital items	3,558	3,332	5,154	5,827	8,760	12,281	2,526	4,715	6,368	8,952	8,334
Total cash expenditures	17,340	20,719	28,443	37,940	48,751	74,748	21,116	26,496	36,556	48,038	56,759
Cash balance	$10,794	$16,048	$19,861	$23,982	$33,643	$41,109	$13,106	$14,717	$20,606	$29,241	$28,982
Inventory change	−3,040	−3,915	−2,925	−1,471	−4,458	−2,919	−1,065	−637	−1,148	−3,775	1,679
Capital change	−189	−965	−537	−1,372	−517	−203	−1,665	−279	285	−71	−1,100
Farm products consumed	95	98	90	134	163	135	130	141	127	273	106
Farm and family earnings	7,660	11,266	16,489	21,273	28,831	38,122	10,506	13,942	19,870	25,668	29,667
Labor and management earnings	−1,089	−47	1,107	1,019	3,715	3,899	1,446	2,522	4,460	3,715	4,407
Capital and management earnings	3,404	6,838	12,073	16,233	23,669	32,414	6,236	9,707	15,735	19,764	23,755
Capital and management earnings per acre	15.06	22.72	28.54	28.63	33.72	33.59	20.86	24.15	28.20	27.34	25.41

Table 15a. — Average Operating Costs, Investments, and Land Use of Grain Farms by Size and Soil Rating, Northern Illinois, 1968

	GRAIN FARMS WITH SOIL RATING 76–100						GRAIN FARMS WITH SOIL RATING 56–75				
Range in size (total acres)	180–259	260–339	340–499	500–649	650–799	800+	260–339	340–499	500–649	650–799	800+
Number of farms	90	123	174	106	46	34	56	91	28	23	12
COSTS AND RETURNS PER TILLABLE ACRE											
Soil fertility	$ 12.35	$ 11.74	$ 13.60	$ 11.76	$ 13.57	$ 14.03	$11.43	$ 12.14	$ 12.12	$ 13.65	$ 13.55
Buildings and fence	7.24	5.47	4.74	4.97	4.63	5.35	6.58	4.64	3.91	3.96	5.82
Machinery and equipment	26.41	24.99	22.49	22.37	21.40	22.09	24.88	23.38	20.67	21.77	18.90
Labor	21.00	17.42	13.58	13.28	12.67	12.97	17.21	13.88	12.56	12.79	12.11
Value of feed fed	13.06	12.73	7.82	9.91	9.31	11.28	20.49	13.18	8.76	11.65	12.76
Livestock returns above feed cost	8.78	7.47	3.44	6.45	5.11	7.55	11.31	8.87	4.59	5.07	8.87
Feed and grain returns	93.07	93.43	97.17	93.81	98.67	100.72	85.85	85.41	91.33	92.62	88.89
Total value of farm production	104.96	103.85	104.98	103.84	107.69	112.17	101.74	98.56	99.38	101.84	100.77
Total nonfeed costs	128.94	118.68	112.33	109.96	108.44	112.50	111.50	102.78	98.18	102.62	99.94
Management returns	−23.98	−14.83	−7.35	−6.12	−.75	−.33	−9.76	−4.22	1.20	−.78	.83
SELECTED COST ITEMS											
Fertilizer, annual application	$ 2,605	$ 3,270	$ 5,328	$ 6,068	$ 8,806	$12,234	$ 3,105	$ 4,313	$ 6,098	$ 8,867	$10,133
Lime and rock phosphate depreciation	26	40	73	25	42	71	5	59	24	85	32
Building repairs and maintenance	388	316	352	630	537	1,319	555	266	486	589	1,258
Building depreciation	1,154	1,226	1,531	1,947	2,484	3,377	1,235	1,405	1,488	2,008	3,107
Machinery and equipment depreciation	2,495	3,023	3,867	5,085	6,379	8,408	2,893	3,389	4,440	6,264	6,188
Machinery repairs and supplies	1,128	1,425	1,892	2,427	3,350	4,853	1,387	1,879	2,359	3,744	3,270
Machinery hire	529	735	871	1,147	682	1,651	622	764	1,015	627	1,117
Gasoline and oil	887	1,272	1,601	2,075	2,572	3,122	1,233	1,643	1,921	2,558	2,708
Unpaid labor charge	4,256	4,428	4,416	5,040	5,162	5,708	4,270	4,235	4,135	5,904	5,912
Hired labor charge	219	484	975	1,839	3,098	5,665	412	762	2,210	2,484	3,171
Total months of labor	12.8	14.0	15.5	19.6	24.0	31.3	13.3	14.9	17.6	23.7	25.0
Months of labor hired	.6	1.4	2.9	5.2	9.3	15.0	1.1	2.8	5.8	6.8	8.1
FARM INVESTMENT											
Livestock inventory	$ 2,449	$ 4,638	$ 4,387	$ 7,095	$ 8,958	$17,505	$ 7,559	$ 6,306	$ 5,165	$ 9,034	$13,682
Grain inventory	18,101	20,753	27,369	33,263	45,337	59,883	17,456	19,556	30,055	39,490	35,284
Remaining capital cost in:											
Machinery and auto	9,494	11,968	16,988	20,637	25,837	31,670	11,486	14,861	19,007	23,696	27,834
Buildings and fence	11,577	14,883	18,564	24,278	24,586	43,033	12,308	16,586	17,739	21,038	29,834
Soil fertility	50	114	88	20	108	160	9	119	55	232	76
Value of land (current basis)	150,270	196,958	273,671	357,126	446,603	589,259	149,025	194,600	270,171	366,727	418,197
Total farm investment	191,941	249,314	341,067	442,419	551,429	741,510	197,843	252,028	342,192	460,217	524,907
Total farm investment per acre	849.30	828.28	806.30	780.28	789.51	768.40	661.68	626.94	615.04	636.54	561.40
Machinery investment per tillable acre	44.57	42.44	42.79	39.84	36.80	36.11	42.23	41.28	37.64	36.12	37.11
PERCENT OF TILLABLE LAND IN											
Corn and corn silage	54.5	48.5	56.9	53.2	56.0	51.4	50.4	52.1	52.6	53.5	54.5
Soybeans	32.7	36.3	31.0	32.9	33.6	32.7	27.3	29.4	32.7	26.2	25.9
Wheat	2.2	2.7	3.2	2.7	3.7	4.0	5.2	4.4	4.5	3.8	4.8
Other small grains	2.3	2.1	1.3	2.2	.7	1.2	3.8	2.8	1.3	1.9	2.1
Diverted acres	5.3	7.9	5.9	5.9	3.5	8.1	7.2	6.5	6.0	12.5	6.4
All hay and pasture crops	3.0	2.6	1.6	3.2	2.5	2.2	6.1	4.3	2.6	2.1	6.1
CROP YIELDS, bushels per acre											
Corn	101.1	100.6	101.9	97.8	103.7	108.6	95.2	95.0	102.4	101.8	96.5
Soybeans	39.0	37.0	36.6	37.3	37.0	38.6	35.1	35.6	36.2	35.6	35.4
Wheat	47.6	46.9	44.9	43.7	44.1	44.9	43.2	41.6	43.8	40.0	37.9
Oats	78.2	80.9	74.5	72.8	90.6	82.3	75.6	69.6	70.0	85.7	69.7

Table 16. — Average Costs, Returns, and Financial Summary of Hog Farms by Size and Soil Rating, Northern Illinois, 1968

	HOG FARMS WITH SOIL RATING 76–100					HOG FARMS WITH SOIL RATING 56–75				
Range in size (total acres)	Under 180	180–259	260–339	340–499	500+	Under 180	180–259	260–339	340–499	500+
Number of farms	33	51	33	32	22	21	31	36	38	21
Size of farm	151	229	290	418	668	150	225	299	399	702
Acres of tillable land	141	206	261	373	610	127	201	251	325	504
Soil rating on tillable land	84	82	82	81	81	69	69	65	66	65
Hens, number	91	13	1	26	5	24	64	33	...	...
Dairy cows, number	...	...	...	...	...	...	2.3	...	.1	.3
Beef produced, hundredweight	329	215	124	347	377	133	109	177	268	525
Pork produced, hundredweight	1,533	1,625	1,729	2,129	3,474	1,161	1,436	1,646	2,047	3,207
DOLLAR COSTS PER FARM										
Soil fertility	$ 1,605	$ 2,638	$ 3,599	$ 4,665	$10,906	$ 1,618	$ 2,624	$ 3,676	$ 4,707	$ 7,907
Buildings and fence	2,118	2,670	2,879	3,946	7,443	1,851	2,303	2,599	3,023	4,492
Machinery and equipment	5,844	7,796	8,822	11,848	19,139	5,313	6,969	8,415	10,226	15,004
Labor	5,073	5,340	5,631	7,178	12,776	4,828	5,584	5,547	6,504	10,490
Taxes	1,683	2,318	2,753	3,612	6,412	1,321	1,837	2,118	2,725	3,753
Seed expense	625	886	1,102	1,489	2,657	561	817	790	1,224	2,211
Crop expense	1,004	1,344	1,928	2,390	5,191	989	994	1,393	1,970	2,803
Livestock and miscellaneous expense	1,481	1,444	1,698	2,055	3,231	942	1,495	1,411	2,004	2,971
Interest charge on capital	6,795	9,654	11,600	16,176	26,465	5,515	7,963	9,100	11,606	18,076
Total nonfeed costs	26,228	34,090	40,012	53,359	94,220	22,938	30,586	35,049	43,989	67,707
Total value of feed fed	17,766	22,011	21,158	30,658	47,636	16,065	19,243	21,213	26,854	44,390
DOLLAR RETURNS PER FARM										
Livestock returns above feed cost	$12,579	$14,317	$12,913	$17,280	$27,275	$ 8,790	$12,637	$13,938	$18,819	$28,716
Feed and grain returns	12,721	18,236	24,334	32,925	59,886	11,541	16,458	21,270	27,998	43,230
Other cash income	715	686	1,258	1,665	2,357	540	813	1,366	1,249	1,984
Total value of farm production	26,015	33,239	38,505	51,870	89,518	20,871	29,908	36,574	48,066	73,930
Management returns	−213	−851	−1,507	−1,489	−4,702	−2,067	−678	1,525	4,077	6,223
Farm production per $1.00 of nonfeed costs	.99	.98	.96	.97	.95	.91	.98	1.04	1.09	1.09
Farm production per man	23,030	26,070	29,060	31,122	29,191	18,018	22,715	27,431	31,692	30,912
FINANCIAL SUMMARY										
Cash sales of products and services	$38,531	$51,735	$54,037	$77,973	$129,558	$35,157	$43,903	$50,840	$68,090	$107,133
Sales of capital items	58	35	181	54	291	27	89	164	36	776
Total cash income	38,589	51,770	54,218	78,027	129,849	35,184	43,992	51,004	68,126	107,909
Purchased livestock	2,203	6,568	4,520	10,225	18,371	5,480	3,323	4,884	6,464	12,894
Purchased feed	9,079	11,248	9,786	13,952	20,948	8,019	8,916	9,816	13,988	21,250
Cash operating expenses	11,160	14,744	17,579	23,896	47,507	9,733	13,345	15,874	21,199	34,858
Purchase of capital items	4,671	4,526	7,994	10,649	18,114	2,287	3,810	5,803	8,261	12,224
Total cash expenditures	27,113	37,086	39,879	58,722	104,940	25,519	29,394	36,377	49,912	81,226
Cash balance	$11,476	$14,684	$14,339	$19,305	$24,909	$ 9,665	$14,598	$14,627	$18,214	$26,683
Inventory change	−1,282	−829	−1,380	−2,277	−937	−962	−1,942	239	215	679
Capital change	609	−708	1,806	2,263	3,772	−1,030	−787	318	2,080	2,167
Farm products consumed	48	149	154	351	216	175	186	195	213	262
Farm and family earnings	10,851	13,296	14,919	19,642	27,960	7,848	12,055	15,379	20,722	29,791
Labor and management earnings	3,838	3,154	2,619	2,679	−550	1,900	3,460	5,715	8,167	10,422
Capital and management earnings	6,582	8,803	10,093	14,687	21,763	3,448	7,285	10,625	15,683	24,299
Capital and management earnings per acre	43.59	38.44	34.80	35.14	32.58	22.99	32.38	35.54	39.31	34.61

Table 16a. — Average Operating Costs, Investments, and Land Use of Hog Farms by Size and Soil Rating, Northern Illinois, 1968

	HOG FARMS WITH SOIL RATING 76–100					HOG FARMS WITH SOIL RATING 56–75				
Range in size (total acres)	Under 180	180–259	260–339	340–499	500+	Under 180	180–259	260–339	340–499	500+
Number of farms	33	51	33	32	22	21	31	36	38	21
COSTS AND RETURNS PER TILLABLE ACRE										
Soil fertility	$ 11.38	$ 12.80	$ 13.79	$ 12.51	$ 17.88	$ 12.74	$ 13.05	$ 14.65	$ 14.48	$ 15.69
Buildings and fence	15.02	12.96	11.03	10.58	12.20	14.57	11.46	10.35	9.30	8.91
Machinery and equipment	41.45	37.84	33.80	31.76	31.38	41.83	34.67	33.52	31.46	29.77
Labor	35.98	25.92	21.57	19.24	20.94	38.02	27.78	22.10	20.01	20.81
Value of feed fed	126.00	106.85	81.06	82.19	78.09	126.50	95.74	84.51	82.63	88.08
Livestock returns above feed cost	89.21	69.50	49.48	46.33	44.71	69.21	62.87	55.53	57.90	56.98
Feed and grain returns	90.22	88.52	93.23	88.27	98.17	90.87	81.88	84.74	86.15	85.77
Total value of farm production	184.50	161.35	147.53	139.06	146.75	164.34	148.80	145.71	147.90	146.69
Total nonfeed costs	186.01	165.48	153.30	143.05	154.46	180.61	152.17	139.64	135.35	134.34
Management returns	−1.51	−4.13	−5.77	−3.99	−7.71	−16.27	−3.37	6.07	12.55	12.35
SELECTED COST ITEMS										
Fertilizer, annual application	$ 1,589	$ 2,603	$ 3,544	$ 4,595	$10,707	$ 1,598	$ 2,610	$ 3,657	$ 4,670	$ 7,871
Lime and rock phosphate depreciation	16	35	55	70	199	20	14	19	37	36
Building repairs and maintenance	506	742	794	975	1,891	525	654	722	1,228	1,248
Building depreciation	1,612	1,928	2,085	2,971	5,552	1,326	1,649	1,877	1,795	3,244
Machinery and equipment depreciation	2,362	3,226	3,835	5,248	8,235	1,944	2,822	3,400	4,274	5,980
Machinery repairs and supplies	1,134	1,730	1,986	2,426	4,622	1,011	1,483	1,724	2,280	3,722
Machinery hire	633	956	707	1,094	1,448	705	773	1,097	978	1,638
Gasoline and oil	866	1,112	1,393	1,895	2,862	921	1,035	1,352	1,695	2,417
Unpaid labor charge	4,269	4,493	4,826	4,955	6,197	4,400	4,770	4,754	5,038	5,492
Hired labor charge	804	847	805	2,223	6,579	428	814	793	1,466	4,998
Total months of labor	14.3	15.3	15.9	20.0	36.8	13.9	15.8	16.0	18.2	28.7
Months of labor hired	2.1	2.5	2.1	5.9	19.1	1.3	2.2	2.4	3.8	13.1
FARM INVESTMENT										
Livestock inventory	$10,836	$17,418	$16,646	$27,779	$39,637	$13,209	$14,745	$17,107	$22,488	$40,115
Grain inventory	11,506	16,486	19,921	27,611	49,000	9,270	13,550	16,174	19,700	28,221
Remaining capital cost in:										
Machinery and auto	9,747	14,176	15,249	20,093	31,748	8,304	12,136	13,144	17,685	23,772
Buildings and fence	14,997	18,269	22,838	28,076	51,178	12,555	18,387	18,985	18,760	30,997
Soil fertility	32	93	123	128	479	31	35	37	82	61
Value of land (current basis)	99,201	141,693	177,832	248,884	403,568	72,815	110,796	129,351	172,069	267,163
Total farm investment	146,319	208,135	252,609	352,571	575,610	116,184	169,649	194,798	250,784	390,329
Total farm investment per acre	969.00	908.89	871.06	843.47	861.69	774.56	754 00	651.50	628.53	556.02
Machinery investment per tillable acre	69.13	68.82	58.42	53.87	52.04	65.38	60.38	52.37	54.42	47.17
PERCENT OF TILLABLE LAND IN										
Corn and corn silage	69.5	65.0	65.0	61.9	71.7	70.9	67.8	57.2	63.3	64.5
Soybeans	9.6	12.4	14.9	15.0	10.7	1.4	9.7	16.4	15.2	12.0
Wheat	.7	.7	.9	.7	1.3	.2	1.0	4.9	2.6	5.1
Other small grains	9.0	9.2	8.7	7.6	5.2	10.6	7.9	5.6	5.3	3.9
Diverted acres	2.5	2.1	2.2	3.1	3.4	2.9	3.6	3.1	3.1	1.5
All hay and pasture crops	8.4	10.6	8.3	10.5	7.1	13.7	9.7	12.7	10.5	13.0
CROP YIELDS, bushels per acre										
Corn	97.7	98.0	102.7	96.3	105.3	107.0	87.4	100.1	94.1	97.8
Soybeans	40.4	41.1	43.0	37.0	40.6	47.4	35.6	35.5	47.0	35.3
Wheat	48.1	58.5	57.2	45.5	46.2	39.0	45.5	39.9	44.4	42.3
Oats	88.5	79.8	89.4	86.3	88.7	78.3	82.8	71.4	68.7	65.2

Table 17. — Average Costs, Returns, and Financial Summary of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1968

	GRAIN FARMS WITH SOIL RATING 5–55					HOG FARMS WITH SOIL RATING 5–55				
Range in size (total acres)	180–259	260–339	340–499	500–749	750+	180–259	260–339	340–499	500–649	650+
Number of farms	29	42	87	69	21	22	31	39	19	19
Size of farm	219	301	406	613	1,073	224	297	419	584	834
Acres of tillable land	199	266	356	522	874	180	237	333	433	598
Soil rating on tillable land	35	32	35	32	34	37	33	32	32	39
Hens, number	37	35	30	7	83	23	36	31	8	3
Dairy cows, number	...	...	...	.6	1.3	1.5	...	.2	...	...
Beef produced, hundredweight	34	66	82	109	247	97	106	212	193	359
Pork produced, hundredweight	244	240	385	405	841	1,177	1,306	1,802	2,201	2,649
DOLLAR COSTS PER FARM										
Soil fertility	$ 1,911	$ 2,970	$ 3,497	$ 6,231	$10,426	$ 2,581	$ 2,867	$ 4,255	$ 5,700	$ 7,596
Buildings and fence	887	987	1,358	2,011	4,253	1,661	1,885	2,705	2,629	3,668
Machinery and equipment	4,726	6,903	8,144	11,473	17,827	7,054	7,414	10,034	12,046	15,558
Labor	4,292	4,526	4,878	6,308	8,991	4,818	4,986	6,369	7,591	10,682
Taxes	1,027	1,304	1,739	2,276	3,533	1,242	1,305	1,704	1,878	3,077
Seed expense	467	651	813	1,253	2,324	575	567	1,029	1,235	2,065
Crop expense	815	1,317	1,543	2,357	4,828	782	1,127	1,857	1,720	2,710
Livestock and miscellaneous expense	344	506	571	674	1,086	936	863	1,196	1,556	2,002
Interest charge on capital	3,554	4,610	6,442	8,850	15,195	4,578	5,227	7,587	9,218	14,393
Total nonfeed costs	18,023	23,774	28,985	41,433	68,463	24,227	26,241	36,736	43,573	61,751
Total value of feed fed	3,376	4,037	5,518	6,881	13,117	14,259	15,423	23,065	28,171	36,861
DOLLAR RETURNS PER FARM										
Livestock returns above feed cost	$ 1,971	$ 2,314	$ 3,406	$ 3,824	$ 9,120	$10,510	$10,955	$14,651	$17,107	$20,277
Feed and grain returns	14,111	19,944	26,513	39,075	65,336	13,350	17,263	24,788	27,124	39,094
Other cash income	525	867	1,205	1,494	4,624	964	916	1,249	1,765	2,733
Total value of farm production	16,607	23,125	31,124	44,393	79,080	24,824	29,134	40,688	45,996	62,104
Management returns	−1,416	−649	2,139	2,960	10,617	597	2,893	3,952	2,423	353
Farm production per $1.00 of nonfeed costs	.92	.97	1.07	1.07	1.16	1.02	1.11	1.11	1.06	1.01
Farm production per man	15,449	20,108	24,571	27,602	37,069	20,128	22,850	25,168	23,791	24,118
FINANCIAL SUMMARY										
Cash sales of products and services	$20,025	$27,727	$38,097	$51,271	$93,715	$35,562	$40,409	$60,078	$66,607	$88,945
Sales of capital items	77	81	419	132	115	34	44	144	145	27
Total cash income	20,102	27,808	38,516	51,403	93,830	35,596	40,453	60,222	66,752	88,972
Purchased livestock	633	2,194	2,386	2,650	7,116	3,419	4,272	7,731	4,491	7,436
Purchased feed	1,175	1,562	2,686	2,942	5,160	6,677	7,272	10,594	15,800	17,042
Cash operating expenses	7,794	11,163	13,604	21,248	37,152	11,377	12,713	18,251	22,374	32,406
Purchase of capital items	3,097	4,347	5,422	9,413	12,850	4,128	6,771	6,361	7,214	11,044
Total cash expenditures	12,699	19,266	24,098	36,253	62,278	25,601	31,028	42,937	49,879	67,928
Cash balance	$ 7,403	$ 8,542	$14,418	$15,150	$31,552	$ 9,995	$ 9,425	$17,285	$16,873	$21,044
Inventory change	−1,706	−964	−2,027	−1,467	−2,658	−839	131	−1,336	−472	−2,695
Capital change	256	428	207	2,569	2,933	33	2,499	2	322	1,607
Farm products consumed	96	118	126	181	299	197	138	271	152	332
Farm and family earnings	6,049	8,124	12,724	16,433	32,126	9,386	12,193	16,222	16,875	20,288
Labor and management earnings	2,282	3,220	5,909	6,822	14,269	4,496	6,641	7,761	6,288	4,253
Capital and management earnings	2,138	3,961	8,581	11,810	25,812	5,175	8,120	11,539	11,641	14,746
Capital and management earnings per acre	9.76	13.16	21.14	19.26	24.06	23.11	27.34	27.54	19.93	17.68

Table 17a. — Average Operating Costs, Investments, and Land Use of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1968

	GRAIN FARMS WITH SOIL RATING 5–55					HOG FARMS WITH SOIL RATING 5–55				
Range in size (total acres)	180–259	260–339	340–499	500–749	750+	180–259	260–339	340–499	500–649	650+
Number of farms	29	42	87	69	21	22	31	39	19	19
COSTS AND RETURNS PER TILLABLE ACRE										
Soil fertility	$ 9.60	$ 11.16	$ 9.82	$ 11.94	$ 11.93	$ 14.34	$ 12.10	$ 12.78	$ 13.16	$ 12.70
Buildings and fence	4.46	3.71	3.81	3.85	4.87	9.23	7.95	8.12	6.07	6.13
Machinery and equipment	23.75	25.95	22.88	21.98	20.40	39.19	31.28	30.13	27.82	26.02
Labor	21.57	17.02	13.70	12.08	10.29	26.77	21.04	19.13	17.53	17.86
Value of feed fed	16.96	15.18	15.50	13.18	15.01	79.22	65.08	69.26	65.06	61.64
Livestock returns above feed cost	9.90	8.70	9.57	7.33	10.43	58.39	46.22	44.00	39.51	33.91
Feed and grain returns	70.91	74.98	74.47	74.85	74.76	74.16	72.85	74.44	62.64	65.37
Total value of farm production	83.45	86.94	87.43	85.04	90.48	137.91	122.93	122.19	106.23	103.85
Total nonfeed costs	90.57	89.38	81.42	79.37	78.33	134.59	110.72	110.32	100.63	103.26
Management returns	−7.12	−2.44	6.01	5.67	12.15	3.32	12.21	11.87	5.60	.59
SELECTED COST ITEMS										
Fertilizer, annual application	$ 1,879	$ 2,916	$ 3,359	$ 6,157	$10,299	$ 2,552	$ 2,826	$ 4,185	$ 5,595	$ 7,513
Lime and rock phosphate depreciation	32	54	138	74	127	29	41	70	105	83
Building repairs and maintenance	350	339	415	660	2,199	682	812	1,099	1,043	1,234
Building depreciation	537	648	943	1,351	2,054	979	1,073	1,606	1,586	2,434
Machinery and equipment depreciation	2,185	3,136	3,713	5,284	7,606	3,042	3,108	4,539	5,016	6,872
Machinery repairs and supplies	860	1,649	1,813	2,806	4,782	1,681	1,753	2,408	2,878	3,686
Machinery hire	403	460	530	683	1,230	686	796	571	1,184	1,174
Gasoline and oil	833	1,102	1,467	1,966	3,206	999	1,124	1,649	1,861	2,604
Unpaid labor charge	3,911	4,163	4,143	4,623	6,314	4,210	4,073	4,683	5,234	5,542
Hired labor charge	381	363	735	1,685	2,677	608	913	1,686	2,357	5,140
Total months of labor	12.9	13.8	15.2	19.3	25.6	14.8	15.3	19.4	23.2	30.9
Months of labor hired	.9	1.0	2.5	5.1	6.2	1.9	2.8	5.0	7.1	13.8
FARM INVESTMENT										
Livestock inventory	$ 3,860	$ 4,108	$ 6,553	$ 7,839	$14,195	$12,144	$12,316	$19,533	$20,833	$31,115
Grain inventory	7,634	11,238	12,708	19,220	30,225	9,838	11,806	15,302	17,833	25,860
Remaining capital cost in:										
Machinery and auto	7,974	12,502	15,389	20,271	29,635	12,505	12,238	18,528	21,859	29,580
Buildings and fence	4,172	5,189	8,494	10,411	17,718	7,720	9,176	15,165	13,488	19,092
Soil fertility	59	97	211	178	341	72	74	210	328	302
Value of land (current basis)	53,299	65,438	96,012	134,365	241,696	51,053	62,249	86,568	118,942	200,899
Total farm investment	76,998	98,572	139,367	192,284	333,810	93,332	107,859	155,306	193,283	306,848
Total farm investment per acre	351.59	337.48	343.27	313.68	311.10	416.66	363.16	370.66	330.96	367.92
Machinery investment per tillable acre	40.07	47.00	43.23	38.83	33.91	69.47	51.64	55.64	50.48	49.46
PERCENT OF TILLABLE LAND IN										
Corn and corn silage	34.0	39.1	37.7	44.3	43.8	52.0	46.9	50.0	49.8	49.5
Soybeans	36.2	37.8	35.4	30.1	29.6	19.4	29.3	23.7	20.6	20.7
Wheat	13.8	12.3	14.5	14.7	14.7	12.2	11.6	13.1	10.0	11.6
Other small grains	1.9	.7	.8	.8	.6	1.3	1.4	1.0	1.9	...
Diverted acres	6.6	5.2	7.1	5.5	5.1	4.4	3.1	3.4	5.0	4.0
All hay and pasture crops	6.8	4.5	3.9	3.9	5.6	9.7	7.2	8.6	11.2	14.0
CROP YIELDS, bushels per acre										
Corn	86.1	87.2	87.2	86.0	85.9	85.5	82.0	86.9	79.9	79.0
Soybeans	31.9	31.2	31.7	31.3	32.0	30.9	30.9	31.7	25.9	29.6
Wheat	40.0	40.9	38.4	37.9	39.0	38.4	40.3	37.3	34.7	34.5

Table 18. — Average Costs, Returns, and Financial Summary of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1968

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF					DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF			
	76–100	56–75	56–100			5–55			
Range in size (total acres)	Under 180		180–259	260–339	340+	Under 180	180–259	260–339	340+
Number of farms	16	41	41	28	22	15	26	25	32
Size of farm	137	146	217	290	457	148	218	296	490
Acres of tillable land	125	124	189	253	358	119	191	256	394
Soil rating on tillable land	82	66	70	71	68	30	32	29	30
Hens, number	5	39	36	86	14	39	...	34	32
Dairy cows, number	33.5	33.9	40.7	42.8	55.2	35.3	42.0	45.1	61.2
Beef produced, hundredweight	...	2	1	18	15	...	7	4	25
Pork produced, hundredweight	41	118	217	94	224	51	91	95	101
DOLLAR COSTS PER FARM									
Soil fertility	$ 1,343	$ 1,078	$ 1,634	$ 2,457	$ 4,114	$ 1,419	$ 2,240	$ 2,801	$ 4,221
Buildings and fence	1,665	2,130	2,823	3,342	3,699	1,406	2,112	2,557	3,331
Machinery and equipment	5,685	5,615	8,010	9,335	12,683	6,423	7,959	9,977	13,391
Labor	5,421	5,396	5,700	7,014	10,139	6,073	6,508	7,376	9,769
Taxes	1,438	1,409	2,084	2,544	3,302	884	1,234	1,476	2,128
Seed expense	547	476	746	1,050	1,247	474	659	644	952
Crop expense	319	402	750	1,101	2,164	331	504	818	1,558
Livestock and miscellaneous expense	1,664	1,334	1,607	1,709	2,187	1,459	1,659	1,667	2,569
Interest charge on capital	5,830	5,218	8,171	10,081	14,213	3,377	5,211	5,734	9,291
Total nonfeed costs	23,912	23,058	31,525	38,633	53,748	21,846	28,086	33,050	47,210
Total value of feed fed	11,289	12,205	15,663	15,956	24,312	11,810	14,885	15,124	21,532
DOLLAR RETURNS PER FARM									
Livestock returns above feed cost	$12,184	$12,138	$14,235	$15,091	$18,689	$13,272	$15,438	$16,584	$22,098
Feed and grain returns	11,160	10,726	16,622	22,101	33,916	8,602	14,867	17,438	28,262
Other cash income	632	606	659	1,075	1,338	936	961	1,356	1,806
Total value of farm production	23,976	23,470	31,516	38,267	53,943	22,810	31,266	35,378	52,166
Management returns	64	412	−9	−366	195	964	3,180	2,328	4,956
Farm production per $1.00 of nonfeed costs	1.00	1.02	1.00	.99	1.00	1.04	1.11	1.07	1.10
Farm production per man	18,562	18,170	22,247	23,429	24,992	15,040	19,541	19,385	21,438
FINANCIAL SUMMARY									
Cash sales of products and services	$28,585	$26,841	$37,028	$43,298	$61,568	$27,829	$35,727	$42,340	$59,705
Sales of capital items	...	114	62	109	30	45	43	123	54
Total cash income	28,585	26,955	37,090	43,407	61,598	27,874	35,770	42,463	59,759
Purchased livestock	891	956	1,856	1,697	1,397	611	812	2,604	3,387
Purchased feed	4,063	3,201	4,232	3,877	6,442	4,349	4,839	4,505	5,892
Cash operating expenses	10,234	9,328	13,074	17,072	26,238	9,852	12,653	16,381	24,202
Purchase of capital items	3,059	3,609	5,037	6,580	6,684	4,811	6,827	8,727	9,998
Total cash expenditures	18,247	17,094	24,199	29,226	40,761	19,623	25,131	32,217	43,479
Cash balance	$10,338	$ 9,861	$12,891	$14,181	$20,837	$ 8,251	$10,639	$10,246	$16,280
Inventory change	36	518	245	264	−153	−335	945	−218	1,295
Capital change	−20	−237	−257	335	−1,202	1,024	1,749	2,453	1,610
Farm products consumed	309	268	328	279	367	276	245	365	445
Farm and family earnings	10,663	10,410	13,207	15,059	19,849	9,216	13,578	12,846	19,630
Labor and management earnings	3,739	4,526	4,191	3,784	4,363	4,734	7,005	6,228	8,846
Capital and management earnings	5,894	5,630	8,162	9,715	14,408	4,341	8,391	8,062	14,247
Capital and management earnings per acre	43.02	38.56	37.61	33.50	31.53	29.33	38.49	27.24	29.08

Table 18a. — Average Operating Costs, Investments, and Land Use of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1968

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF					DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF			
	76–100	56–75	56–100			5–55			
Range in size (total acres)	Under 180		180–259	260–339	340+	Under 180	180–259	260–339	340+
Number of farms	16	41	41	28	22	15	26	25	32
COSTS AND RETURNS PER TILLABLE ACRE									
Soil fertility	$ 10.74	$ 8.69	$ 8.65	$ 9.71	$ 11.49	$ 11.92	$ 11.73	$ 10.94	$ 10.71
Buildings and fence	13.32	17.18	14.94	13.21	10.33	11.82	11.06	9.99	8.45
Machinery and equipment	45.48	45.28	42.38	36.90	35.43	53.97	41.67	38.98	33.99
Labor	43.37	43.52	30.16	27.72	28.32	51.03	34.07	28.81	24.79
Value of feed fed	90.31	98.43	82.87	63.07	67.91	99.24	77.93	59.08	54.65
Livestock returns above feed cost	97.47	97.88	75.32	59.65	52.20	111.53	80.83	64.78	56.09
Feed and grain returns	89.28	86.50	87.94	87.36	94.74	72.28	77.84	68.12	71.73
Total value of farm production	191.81	189.27	166.75	151.25	150.68	191.68	163.70	138.20	132.40
Total nonfeed costs	191.30	185.95	166.80	152.70	150.13	183.58	147.05	129.11	119.82
Management returns	.51	3.32	−.05	−1.45	.55	8.10	16.65	9.09	12.58
SELECTED COST ITEMS									
Fertilizer, annual application	$ 1,338	$ 1,071	$ 1,634	$ 2,441	$ 4,067	$ 1,399	$ 2,159	$ 2,724	$ 4,085
Lime and rock phosphate depreciation	5	7	...	16	47	20	81	77	136
Building repairs and maintenance	459	678	942	1,164	972	439	611	874	993
Building depreciation	1,206	1,452	1,881	2,178	2,727	967	1,501	1,683	2,338
Machinery and equipment depreciation	1,868	2,273	3,354	3,942	5,069	2,740	3,445	4,370	5,809
Machinery repairs and supplies	1,422	1,194	1,701	2,150	3,185	1,434	1,729	2,362	3,563
Machinery hire	674	565	838	767	997	822	779	961	976
Gasoline and oil	961	853	1,225	1,388	2,008	657	1,101	1,331	1,915
Unpaid labor charge	4,769	4,780	5,045	5,344	5,441	4,875	5,187	4,784	5,383
Hired labor charge	652	616	655	1,670	4,698	1,198	1,321	2,592	4,386
Total months of labor	15.5	15.5	17.0	19.6	25.9	18.2	19.2	21.9	29.2
Months of labor hired	1.9	1.9	2.6	4.3	10.4	3.2	3.2	7.2	12.6
FARM INVESTMENT									
Livestock inventory	$10,414	$11,570	$15,513	$15,269	$21,225	$10,490	$14,169	$12,188	$22,233
Grain inventory	8,321	7,144	11,877	14,627	21,480	5,671	8,574	10,772	16,895
Remaining capital cost in:									
Machinery and auto	6,938	8,142	12,833	14,985	19,649	11,945	14,809	16,530	24,713
Buildings and fence	13,704	16,237	24,446	26,650	31,543	9,283	15,854	16,349	22,727
Soil fertility	5	16	...	32	77	38	157	204	356
Value of land (current basis)	86,681	65,793	107,262	144,696	214,361	28,277	49,934	59,299	101,877
Total farm investment	126,063	108,902	171,931	216,259	308,335	65,704	103,497	115,342	188,801
Total farm investment per acre	920.17	745.90	792.31	745.72	674.69	443.95	474.76	389.67	385.31
Machinery investment per tillable acre	55.50	65.66	67.87	59.23	54.88	100.38	77.53	64.57	62.72
PERCENT OF TILLABLE LAND IN									
Corn and corn silage	48.4	43.0	46.9	51.5	52.2	43.9	48.4	37.0	41.4
Soybeans	8.4	1.8	5.4	11.3	10.1	4.9	13.9	21.0	21.6
Wheat	.7	.2	.5	1.0	1.1	8.7	10.4	13.2	12.4
Other small grains	11.5	13.2	12.2	9.1	9.8	1.8	1.0	2.1	1.6
Diverted acres	2.3	2.5	5.6	4.5	6.4	...	1.0	2.2	3.0
All hay and pasture crops	28.4	39.1	28.9	22.5	20.4	39.6	24.0	22.7	19.7
CROP YIELDS, bushels per acre									
Corn	100.1	103.7	102.8	98.2	93.7	78.9	79.6	76.9	79.4
Soybeans	41.4	29.9	34.2	36.1	29.2	28.5	29.2	30.0	29.0
Wheat	33.1	28.0	49.1	41.5	37.3	39.6	43.1	36.5	37.4
Oats	78.4	73.9	75.8	76.1	77.8	...	...	...	...

Table 19. — Average Costs, Returns, and Financial Summary of Beef-Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1968

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56-100					BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 5-55		POULTRY FARMS, NORTHERN ILL. SOIL RATING 56-100
Range in size (total acres)	Under 180	180–259	260–339	340–499	500+	Under 500	500+	Under 280
Number of farms	13	42	38	49	30	17	18	9
Size of farm	158	226	300	407	716	326	832	236
Acres of tillable land	142	204	278	366	598	272	559	222
Soil rating on tillable land	75	75	76	75	75	32	36	76
Hens, number	63	17	42	...	11	239	...	8,688
Dairy cows, number	...	...	.5	.5	...	...	...	...
Beef produced, hundredweight	524	923	1,252	1,626	2,481	802	1,332	33
Pork produced, hundredweight	173	488	485	742	951	431	925	116
DOLLAR COSTS PER FARM								
Soil fertility	$ 1,884	$ 2,866	$ 3,745	$ 4,808	$10,633	$ 3,004	$ 8,118	$ 2,791
Buildings and fence	1,828	2,804	3,256	5,409	6,326	2,207	3,713	2,501
Machinery and equipment	5,339	7,651	9,129	12,097	17,225	9,541	15,314	10,136
Labor	4,611	5,160	5,580	7,000	11,522	5,407	9,181	7,733
Taxes	1,779	2,189	2,992	3,938	6,084	1,457	2,916	2,384
Seed expense	561	839	1,156	1,928	2,206	694	1,568	716
Crop expense	938	1,396	1,763	2,899	5,094	1,227	2,247	2,002
Livestock and miscellaneous expense	767	1,123	1,088	1,835	2,642	1,103	1,835	861
Interest charge on capital	6,599	10,038	13,282	17,857	27,161	7,277	14,119	9,668
Total nonfeed costs	24,306	34,066	41,991	57,771	88,893	31,917	59,011	38,792
Total value of feed fed	11,969	23,039	28,708	39,124	56,781	21,037	33,192	26,051
DOLLAR RETURNS PER FARM								
Livestock returns above feed cost	$ 5,615	$ 9,625	$12,684	$15,439	$26,445	$ 9,328	$16,210	$16,121
Feed and grain returns	13,583	19,790	29,199	37,980	59,969	21,792	42,007	18,878
Other cash income	561	1,393	1,300	1,348	1,776	1,419	1,639	2,311
Total value of farm production	19,759	30,808	43,183	54,767	88,190	32,539	59,856	37,310
Management returns	−4,547	−3,258	1,192	−3,004	−703	622	845	−1,482
Farm production per $1.00 of nonfeed costs	.81	.90	1.03	.95	.99	1.02	1.01	.96
Farm production per man	18,100	24,979	32,186	34,052	35,753	23,809	25,027	19,382
FINANCIAL SUMMARY								
Cash sales of products and services	$41,296	$68,894	$89,757	$125,553	$180,983	$71,158	$112,857	$70,020
Sales of capital items	43	65	126	78	862	98	357	26
Total cash income	41,339	68,959	89,883	125,631	181,845	71,256	113,214	70,046
Purchased livestock	18,229	30,707	41,772	58,329	83,953	27,804	40,723	7,493
Purchased feed	2,366	7,236	7,779	15,392	16,551	8,981	9,633	19,360
Cash operating expenses	10,031	14,090	17,346	25,856	44,362	14,510	29,817	16,831
Purchase of capital items	1,836	5,101	6,595	8,689	13,302	5,881	13,387	4,862
Total cash expenditures	32,462	57,134	73,492	108,266	158,168	57,176	93,560	48,546
Cash balance	$ 8,877	$11,825	$16,391	$17,365	$23,677	$14,080	$19,654	$21,500
Inventory change	−1,198	−421	2,617	2,568	7,263	−2,249	−3,081	−5,936
Capital change	−1,522	−331	−178	−908	−18	−141	3,372	−2,051
Farm products consumed	256	278	360	367	448	415	436	79
Farm and family earnings	6,413	11,351	19,190	19,392	31,370	12,105	20,381	13,592
Labor and management earnings	−347	917	5,346	1,217	3,368	4,522	4,745	2,679
Capital and management earnings	2,052	6,780	14,474	14,853	26,458	7,899	14,964	8,186
Capital and management earnings per acre	12.99	30.00	48.25	36.49	36.95	24.23	17.98	34.69

Table 19a. — Average Operating Costs, Investments, and Land Use of Beef-Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1968

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56–100					BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 5–55		POULTRY FARMS, NORTHERN ILL. SOIL RATING 56-100
Range in size (total acres)	Under 180	180–259	260–339	340–499	500+	Under 500	500+	Under 280
Number of farms	13	42	38	49	30	17	18	9
COSTS AND RETURNS PER TILLABLE ACRE								
Soil fertility	$ 13.27	$ 14.05	$ 13.47	$ 13.14	$ 17.78	$ 11.04	$ 14.52	$ 12.57
Buildings and fence	12.87	13.74	11.71	14.78	10.58	8.11	6.64	11.27
Machinery and equipment	37.60	37.50	32.84	33.05	28.80	35.08	27.40	45.66
Labor	32.47	25.29	20.07	19.13	19.27	19.88	16.42	34.83
Value of feed fed	84.29	112.94	103.27	106.90	94.95	77.34	59.38	117.35
Livestock returns above feed cost	39.54	47.18	45.63	42.18	44.22	34.29	29.00	72.62
Feed and grain returns	95.65	97.01	105.03	103.77	100.28	80.12	75.15	85.03
Total value of farm production	139.15	151.02	155.33	149.64	147.47	119.63	107.08	168.06
Total nonfeed costs	171.17	166.99	151.04	157.84	148.65	117.34	105.57	174.74
Management returns	−32.02	−15.97	4.29	− 8.20	−1.18	2.29	1.51	−6.68
SELECTED COST ITEMS								
Fertilizer, annual application	$ 1,844	$ 2,839	$ 3,669	$ 4,744	$10,566	$ 2,910	$ 7,924	$ 2,739
Lime and rock phosphate depreciation	40	27	76	64	67	94	194	52
Building repairs and maintenance	528	660	751	1,319	1,840	695	1,325	379
Building depreciation	1,300	2,144	2,505	4,090	4,486	1,512	2,388	2,122
Machinery and equipment depreciation	1,975	3,178	4,066	5,350	7,861	4,303	7,028	4,713
Machinery repairs and supplies	1,018	1,770	1,771	2,724	3,735	2,219	3,998	1,565
Machinery hire	897	686	1,046	1,097	1,685	874	812	664
Gasoline and oil	889	1,244	1,426	1,992	2,680	1,485	2,536	1,551
Unpaid labor charge	4,361	4,571	4,716	4,539	4,912	4,206	5,417	5,406
Hired labor charge	250	589	864	2,461	6,610	1,201	3,764	2,327
Total months of labor	13.1	14.8	16.1	19.3	29.6	16.4	28.7	23.1
Months of labor hired	.6	1.7	2.6	6.4	15.6	3.5	12.1	7.7
FARM INVESTMENT								
Livestock inventory	$17,023	$28,895	$40,742	$54,469	$81,069	$31,058	$51,529	$11,793
Grain inventory	11,498	16,988	21,282	26,605	46,121	12,275	27,996	15,672
Remaining capital cost in:								
Machinery and auto	8,005	12,883	16,550	21,168	30,110	16,752	26,163	20,481
Buildings and fence	14,577	24,854	30,229	43,975	53,404	14,271	19,940	20,543
Soil fertility	93	38	138	139	126	185	419	153
Value of land (current basis)	88,166	125,467	168,647	226,889	362,783	70,106	163,922	138,737
Total farm investment	139,362	209,125	277,588	373,245	573,613	144,647	289,969	207,379
Total farm investment per acre	882.04	925.33	925.29	917.06	801.14	443.70	348.52	878.72
Machinery investment per tillable acre	56.37	63.15	59.53	57.84	50.35	61.59	46.80	92.26
PERCENT OF TILLABLE LAND IN								
Corn and corn silage	68.3	64.6	63.3	67.6	69.3	44.4	51.6	61.1
Soybeans	3.3	10.6	11.6	8.6	9.4	19.3	17.5	20.2
Wheat	1.8	.1	1.1	1.4	1.9	14.4	12.0	2.9
Other small grains	7.6	8.5	8.4	6.8	4.8	2.1	.4	2.6
Diverted acres	3.2	3.4	3.0	5.1	2.2	4.9	2.8	11.0
All hay and pasture crops	15.8	12.2	12.5	10.0	11.8	14.9	14.1	2.2
CROP YIELDS, bushels per acre								
Corn	106.8	101.0	108.6	108.3	105.3	86.2	86.2	89.3
Soybeans	36.8	38.9	38.4	39.1	40.7	30.2	29.4	38.4
Wheat	62.3	40.0	42.2	48.4	39.2	40.6	37.6	41.9
Oats	73.3	82.3	86.8	80.1	83.1	...	...	77.2

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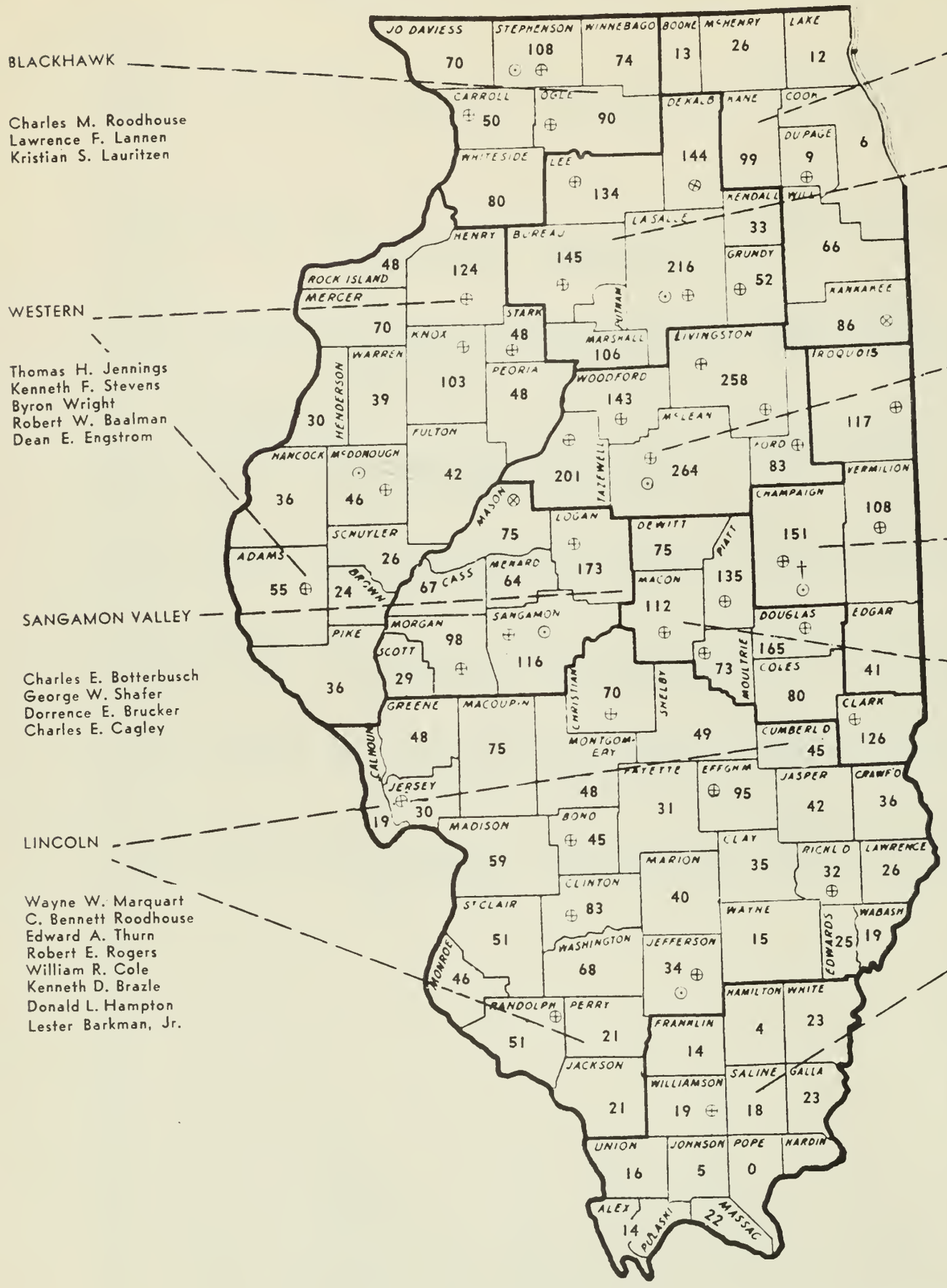

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December, 1969

Urbana, Illinois

Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. JOHN B. CLAAR, *Director*, Cooperative Extension Service, University of Illinois at Urbana-Champaign.

13M—12-69—12022